USDA United States Department of Agriculture

Biennial Monitoring Evaluation Report for the National Forests in Alabama

Fiscal Years 2020 & 2021

Triangular Kidneyshell (Ptychobranchus greenii) federally endangered mussel on the Bankhead Ranger District. USDA Forest Service photo by John Moran.

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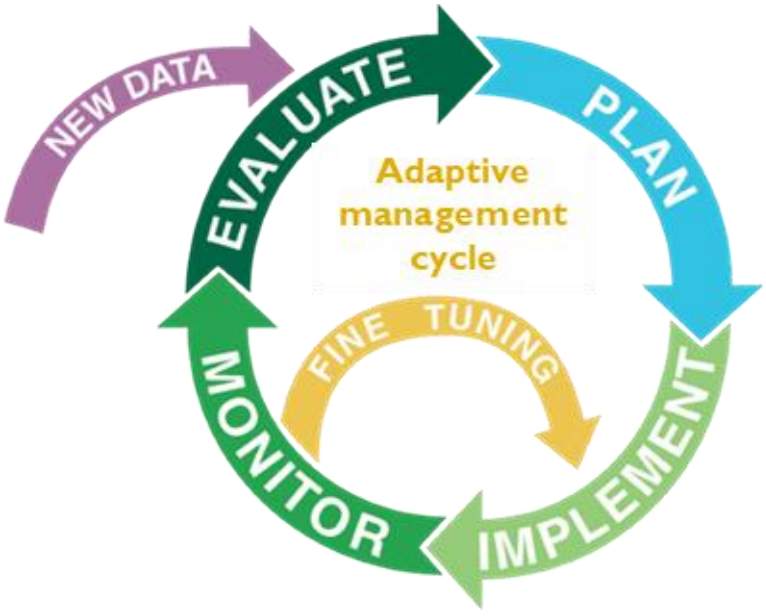
Why monitoring matters

There is no single correct approach to managing a forest or grassland. Each decision maker must weigh the ecological complexity of these ecosystems, the changing environmental conditions, the many different viewpoints of the public, and uncertainty about long-term consequences.

Data from monitoring can therefore be extremely useful. A robust, transparent, and meaningful monitoring program can provide information on specific resources, management impacts, and overall trends in condition – in other words, feedback on whether we are meeting our management objectives or not.

Each national forest or grassland has a land management plan or "forest or grassland plan" that balances tradeoffs among recreation, timber, water, wilderness, wildlife habitat, and other uses. The plan describes a set of desired conditions – a science-based vision for what forest or grassland conditions should be once the goals of the plan are met. The forest or grassland plan also includes a monitoring program, organized around a set of monitoring questions and indicators that are designed to track progress toward achieving the desired conditions in the plan.

Monitoring of certain resources is required by law, regulation, or directive (see box below for the required nine monitoring topics). Other monitoring occurs depending on specific needs of the national forest or grassland. Every 2 years, each forest or grassland compiles and evaluates the monitoring results and drafts a report like this one. Decision makers, such as forest and grassland supervisors, use these biennial monitoring evaluation reports (BMERs) to update their knowledge and assess progress toward the desired conditions in the forest or grassland plan. The public use these BMERs to understand what's happening on the land that they depend upon and enjoy.



If the report reveals that we are not quite meeting the mark, then there's a need to change management in some way; this is adaptively managing. Monitoring data allows us to learn through management and adjust our strategies based on what we learned. Monitoring also helps us be accountable and transparent to interested and affected parties and colleagues.

Because monitoring can be expensive, time-consuming, and labor-intensive, we rely on the help of our partners and work collaboratively with them to accomplish monitoring objectives. We also rely on existing data sources such as national and regional inventory, monitoring, and research programs; federal, state, or local government agencies; scientists, partners, and members of the public; and information from Tribal communities and Alaska Native Corporations.

BMERs, like this one, are critical to adaptive management because they tell us and the public whether the land

management plan is working. We don't make any decisions in BMERs; instead, we simply document and share monitoring results.

Forest Service monitoring programs include questions and indicators that address nine topics.

1. Status of select watershed conditions.
2. Status of select ecological conditions including key characteristics of terrestrial and aquatic ecosystems.
3. Status of focal species to assess the ecological conditions.
4. Status of a select set of the ecological conditions to contribute to the recovery of federally listed threatened and endangered species, conserve proposed and candidate species, and maintain a viable population of each species of conservation concern.
5. Status of visitor use, visitor satisfaction, and progress toward meeting recreation objectives.
6. Measurable changes on the plan area related to climate change and other stressors that might be affecting the plan area.
7. Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities.
8. Effects of each management system to determine that they do not substantially and permanently impair the productivity of the land.
9. Status of social, economic, and cultural sustainability.

Summary of this report

This 2022 biennial monitoring evaluation report for the National Forests in Alabama (NFsAL) documents monitoring activities that occurred during fiscal years 2020 and 2021. The National Forests in Alabama Plan Monitoring Program considers 23 monitoring questions (MQ): 19 questions evaluated by the national forest staff (unit-level) and 4 questions evaluated by Region 8 staff (broad scale). Resource specialists answered the monitoring questions to determine if current activities and monitoring described in Chapter 5 (the monitoring program) of our forest plan are moving the forest toward or maintaining the desired conditions or objectives. Using data collected from 2019 to 2021, resource specialists identified where more data were needed and recommended changes to our forest plan, monitoring plan, or management activities or if a new assessment is needed.

The detailed resource reports that were used to build this monitoring report are available in the project record upon request. For a complete listing of monitoring elements, including method of data collection, monitoring frequency, and reporting interval for each, see Appendix F in the forest plan. This BMER and previous monitoring reports are available at: National Forests in Alabama - Planning (usda.gov)

Table *1* summarizes the results of evaluating the monitoring questions covered in this report. The table shows whether the monitoring is meeting the forest plan direction and, if not, whether changes to the forest plan,

management activities, or plan monitoring program should be considered.

Table 1. Summary of recommendations for all 23 indicators.

	Yes	Uncertain	No
Forest plan direction met	13	6	4
Change to forest plan recommended	6	3	14
Change to management activities recommended	7	5	11
Change to plan monitoring program recommended	4	2	17
Assessment recommended	1	2	20

In the following pages of this report, you'll read about why it's important to evaluate the monitoring results from the five big themes mentioned above. You'll also learn details about the key results of our monitoring efforts, and the changes that we're recommending to our forest supervisor. Lastly, we provide a summary table (**Table *10***) at the end of the report that rolls up the progress and recommendations for each of the 23 indicators.

Forest Supervisor's Certification

This report documents the results of monitoring activities that occurred through Fiscal Year 2020 and 2021 on the National Forests in Alabama. Monitoring on some topics is long-term and evaluation of those data will occur later in time.

I have evaluated the monitoring and evaluation results presented in this report. I have examined the recommended changes the 2004 Land Management Plan, as amended at this time. I therefore consider the 2004 Land Management Plan sufficient to continue to guide land and resource management of the National Forests in Alabama for the near future and plan a deeper examination of the recommended changes through engagement with resource specialists and the public. Information about public engagement sessions will be posted at: https://www.fs.usda.gov/main/alabama/landmanagement/planning

Cherie E Hamilton

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Cherie Hamilton, Forest Supervisor

Date

Status of Select Ecosystem Conditions

Summary

Biological diversity is critical to sustaining healthy ecosystems. The NFsAL supports a natural diversity of species and habitats. A diverse habitat varies in number and species of trees, with different types of herbaceous understory. We aim to maintain or improve terrestrial, aquatic, and riparian habitats.

Streams recharge groundwater aquifers, provide habitat for aquatic and riparian dependent species, and supply water for a variety of human uses. We know that projects and activities on forest lands can impact soil, water quantity and quality, and air resources, so we monitor them to help us determine the types and level of the impacts to watershed resources. NFsAL using an Index of Biotic Integrity (IBI) to assess and monitor the effects of Forest Plan implementation on aquatic habitat and fauna. The Watershed Condition Framework (WCF) to monitor our watersheds condition class.

Figure 1. Cool season burning on the Bankhead Ranger District. USDA Forest Service photo.

Threats to ecosystem health includes dense stands of trees, wildfire suppression, and the spread of invasive species, insects, and disease. There is an increase of feral swine damage to native wildlife and their habitats has been noted in the past several years, especially in riparian areas and with streambeds. NFsAL has worked with APHIS Wildlife Services and ADCNR to safely remove feral swine across the districts utilizing corral style traps have been the most effective removal technique, and in conjunction with sharp-shooting and aerial gunning. Invasive plants continue to be a challenge for the NFsAL with cogongrass, bicolor lespedeza, Chinese privet, kudzu, and exotic sod-forming grasses (Bahia, fescue, and Dallis) being the most notable threats to native ecosystem composition and function. Cogongrass is highly competitive invasive species threatens native plant communities and native pine regeneration efforts.

Monitoring Questions

- MQ 1. Are rare communities being protected, maintained, and restored?
- MQ 2. Are landscape-level and stand-level composition and structure of major forest communities within desirable ranges of variability?
- MQ 3. Are key successional stage habitats being provided?
- MQ 5. What is the status and trend in aquatic habitat conditions in relationship to aquatic communities?
- MQ 6. What are status and trends of forest health threats on the forest?
- MQ 15. Are watersheds maintained (and where necessary restored) to provide resilient and stable conditions to support the quality and quantity of water necessary to protect ecological functions and support intended beneficial uses?

- MQ 16. What are the conditions and trends of riparian area, wetland and floodplain functions and values?

Key Results

Rare Plant Communities

- Limited rare plant inventory was done in 2020 and 2021 due to travel restrictions related to COVID.
- Researchers from Auburn University and the Atlanta Botanical Gardens revisited and surveyed the three known White fringeless orchid (Figure 2) locations on the Shoal Creek Ranger District and collected seeds in October 2021 for safeguarding. The Shoal Creek biologist is working on a project to perform incremental vegetation thinning in these sites in hopes of stimulating flowering and increase vigor in the existing orchid populations.
- In April 2021 the Forest Biologist surveyed the two known Harper's heartleaf (Figure 3) populations on the west side of the Oakmulgee Ranger District. This species is a RFSS and is rare across its range. Populations were observed to be stable from previous years.

Figure 2. White fringeless orchid in flower on the Shoal Creek Ranger District. USDA Forest Service photo.

Figure 3. Harper's heartleaf in bloom on the Oakmulgee Ranger District. USDA Forest Service photo.

Major Forest Communities and Key Successional Stage Habitats

- Prescribed fire occurred on approximately 245,130 acres for FY 2020 and FY 2021. This level of prescribed fire has benefited the upland fire-adapted habitats on the NFsAL for wildlife species such as the Red-cockaded woodpecker, Northern bobwhite, Indigo snake, and Gopher tortoise, as well as many rare plant communities (including pitcher plant bogs, wet pine flatwoods, and open seeps on the Conecuh NF, xeric upland longleaf pine woodlands on the Talladega and Tuskegee NFs, and open pine and hardwood woodlands on portions of the Bankhead NF.)

- Completed 1,326 acres of mechanical fuels reduction in FY 2020 and 3,113 acres in FY 2021. Others fuel management which affected the forest include prescribed burning on Mountain longleaf and Stevens grant burning by state authorities in both Florida and Alabama.
- Several components contribute to providing for the restoration and maintenance of native communities. Vegetation management, using various treatments, contributes to providing and maintaining habitats. Timber harvest, thinning and regeneration provide and maintain key successional stages (**Table *7***).

Aquatic Habitat

- During FY2020-2021, three sites on the Bankhead Ranger District were sampled for a total of five times (two sites twice and one site once) by the Alabama Department of Environmental Management (ADEM) using the IBI 30+2 method and scores were calculated for each sample (***Table 2***). The scores from these sites in 2020 and 2021 are consisted with previous scores and indicate that fish communities and stream health are not declining with the implementation of the Forest Plan. None of these three sites were from 10 selected as permanent sample sites for ongoing, systematic sampling by the Forest Service and partners. These permanent sample sites will be sampled later.
- Two adjacent reaches of Brushy Creek were surveyed in October 2021, and both were within a section of a reach surveyed in 2015 as part of the Lewis-Smith Lake transitional zone project. Habitat conditions, species composition, and relative abundance of mussels were similar between the surveys.

Table 2. Location and number of samples, X/Y coordinates (UTM NAD 1983, zone 16N), and numerical and narrative IBI score classification by year for three sites and eleven samples in 2020 and 2021 using the IBI 30+2 protocol.

Location (# of samples)	X Coordinate (UTM)	Y Coordinate (UTM)	IBI Score(s) and Year
Brushy Creek (2)	473580.915	3798860.85	42 – Good (2020), 44 – Good (2021)
Sipsey Fork (1)	463267.544	3793862.35	46 – Good (2020), 46 – Good (2021)
Borden Creek (1)	463692.132	3796544.14	50 – Excellent (2021)

Forest Health Threats

- **Feral Swine –** In FY2020, approximately 340 feral swine were safely removed and approximately 20 disease samples were collected for Swine Brucellosis, Pseudorabies and CSF testing purposes. In FY2021, approximately 352 feral swine were removed, and 12 disease samples were collected for Swine Brucellosis, Pseudorabies and CSF testing purposes. Monitoring efforts are showing some reduction in certain parts of the Bankhead NF and control efforts are planned for within the Sipsey WA via a minimum tools analysis that was completed and signed by the Region in 2021.
- **NNIS (Non-native invasive species) –** Cogongrass is a significant problem on both the Oakmulgee and Conecuh districts and a much lesser extent on the Tuskegee, Bankhead and Talladega NFs and all known infestations there are being treated annually. Treatments in FY 2020-2021 show a total of 2,559 acres accomplished, which is a slight increase from the 2018-2019 biennial reporting period (2,224 acres).
- **Southern Pine Beetle (SPB) –** Only a total of 12 small SPB spots across NFsAL due to good forest management practices. Good timber harvesting methods, thinning and regeneration cuts when needed have allowed the NFsAL to have minimal outbreaks.

- **Tornado or straight-line wind events –** There were a total of 3 tornados, approximately 6,048 acres, in FY 2021 with on the Oakmulgee Ranger District.

Watersheds, Riparian areas, Wetlands and Soils

- During FY2020-2021, 18 water monitoring sites were established with CitSci project. There are 7 sites on Bankhead, 7 sites on Tuskegee and 4 sites on Conecuh. Parameters recorded at these locations include both bacteriological monitoring (E. coli and other coliform bacteria) and water chemistry monitoring (air and water temperature, pH, total hardness, total alkalinity, dissolved oxygen, and turbidity). There were four sites with high E. coli level, fifteen sites with low total alkalinity, five sites with high turbidity and two sites with low pH for at least one month throughout the year.
- Three new streams were added to the 303(d) listing within the forest boundary, Marys Creek, Choccolocco Creek, and Inman Creek, for a total of 15 streams and waterbodies.
- The National BMP monitoring results are collected on a two-year cycle with FY19-20 and FY21-22 are the monitoring periods. The pandemic affected the ability to go monitor and completion of projects slated to be monitored. Therefore, only two BMP monitoring data were collected.
- Lower Clear Creek and Upper West Flint Creek watersheds changed their watershed condition classification to a downward trend of Functioning at Risk.
- Terrestrial Ecological Unit Inventory (TEUI) mapping project on the Oakmulgee Ranger District with the University of Alabama, Forest Dynamics Lab collected 231 sample points, 143 observations, 80 transect points, and 8 sites. The project completion progress for a total of 74%.
- The Griffin MLRA Soil Survey Office (3-GRI) of the Natural Resources Conservation Service (NRCS) has spatially updated the soil survey by using LiDAR data within Cleburne and Clay counties. In Cleburne County, an estimate of 94,639 acres were updated for map unit TTS – Tatum-Tallapoosa-Fruithurst association, steep. In Clay County, an estimate of 37,866 acres were updated for map unit TRE – Tatum-Tallapoosa-Riverview association, steep.
- There has been no changed in riparian vegetation since the last monitoring period. Riparian areas continue to be avoided from management activities despite the 10% management for early succession outlined in the Revised Land Management Plan.

Recommended Changes

Based on these results, we are considering the following possible changes:

- Increase surveys and monitoring for rare communities.
- Mitigation for prevention and control of NNIS should continue to be a part of every project planning process.
- Continue monitoring for SPB activity and treat where the need arises.
- Increase the number of priority watersheds with established watershed restoration action plans (WRAP).
- New projects need to consider management of riparian areas as per forest plan direction (Objective 8.2).

Effects of management activities to protect, maintain, or restore select populations

Summary

We manage habitat conditions to contribute to the survival and recovery of threatened and endangered species. During the plan revision process and as result of litigation management indicator species (MIS) for the forest were evaluated. The details of that evaluation may be found online in the *Supplemental Information Report Management Indicator Species, National Forests in Alabama, Draft – September 2001.* Twelve species were selected as MIS. Three of the twelve, white-tailed deer, eastern wild turkey and northern bobwhite quail were selected to help indicate management effects on meeting hunting demand for these species. The NFsAL works in cooperation with the Alabama Department of Conservation, Wildlife and Freshwater Fisheries Division in managing habitat for these species and monitoring them. Statewide information concerning hunting and harvests is available online https://www.outdooralabama.com/research.

The remaining MIS are non-game birds and are monitored using "The Southern National Forest's Migrant and Resident Landbird Conservation Strategy" (Gaines and Morris 1996). The NFsAL continues to conduct annual surveys on approximately 300 points. On the NFsAL the bird points were established in the 1997, and in June 2007. Population Trends and Habitat Occurrence of Forest Birds on Southern National Forests 1992-2004 (General Technical Report NRS-9) was published with results from this ongoing effort.

The federally endangered Rush Darter (*Etheostoma phytophilum*) continue to being document on the Bankhead Ranger District. The Rush Darter were found to be utilizing main stem perennial stream channels, intermittent tributaries, wetlands, and ephemeral ponds in the riparian area.

Figure 4. Male Rush Darter. USDA Forest Service photo by John Moran.

The Revised Forest Plan contains both short-term and long-term red-cockaded woodpecker (RCW) population recovery objectives from the **Revised Recovery Plan for the RCW (Recovery Plan).** The RCW population growth objectives consider available habitat and population augmentation. Forest management activities such as thinning, burning and mid-story removal prepare the habitat and suitable habitat must be available for population growth.

Monitoring Questions

- MQ 4. How well are key terrestrial habitat attributes being provided?
- MQ 7. What are the status and trends of federally listed species and species with viability concerns on the forest?
- MQ 8. What are the trends for demand species and their use?

Key Results

- Fifteen reaches totaling 9.6 linear km of stream channel (first through forth order – Strayer) were surveyed for the federally endangered Rush Darter along with eleven sites that included wetlands, ephemeral ponds, springs, and seeps in riparian areas and flood plains during nine separate survey events from March through December 2021. 175 individual adult and juvenile darters were collected or observed in three of the reaches and at eight of the sites surveyed. Habitat types and conditions were qualitatively described at the time of the surveys. Baseline surveys will continue to obtain population estimates, document suitable habitat, and to identify the range of the Rush Darter on the Bankhead Ranger District.
- In ***Table 3*** shows that all management units are now stable and/or increasing in RWC population.

Table 3. RCW Population Objectives and RCW Report Summaries for FY2020 and FY2021

Unit	FY2002 Active Clusters	Short Term (Plan Horizon) Population Goal	Long Term (Recovery) Population Goal	FY2020 Active Clusters	FY2021 Active Clusters
Conecuh	19	28	308	**99**	**101**
Oakmulgee	120	185	395	**152**	**169**
Shoal Creek	8	18	125	**35**	**38**
Talladega	0	10	110	**18**	**23**

- In **Table *4*** shows a total of 202 indigo snakes have been released for the entire project with 107 at original site and 95 at Nellie Pond on Conecuh NF.

Table 4. Indigo Snake Summary

Release year	Total number released	Number of recaptured individuals	Sex of recaptured snakes	Total number of recapture/ observational events
2017	27	2	M, F	4
2018	20	3	3 FF	5
2019	15	5	5 FF	12
2020	22	14	6 MM, 8 FF	29
2021	11	0	0	0

- A large regional (Southeastern Bat Diversity Network) bat blitz was planned to occur on the Bankhead District in the summer of 2020 but due to COVID the event was postponed in 2020 and again in 2021 but is now planned for August 2022. This event will provide valuable data for many bat species and allow us to compare pre-White nose syndrome (WNS) population data (from 2008) with current WNS-affected population trends.

Management Indicator Species (MIS)

- Hunting and harvest of white-tailed deer (Appendix B – Deer Harvest Summary), wild turkey, and bobwhite quail was high during COVID and post-COVID hunting seasons. Wild turkey harvest numbers were especially high due to local and out of state hunters. Across the Southeast there has been a documented decline in this game species over the past decade. Considering these two trends Alabama Department of Conservation and Natural Resources proposed several restrictions for the 2021-2022 harvest seasons and bag limits for turkeys to relieve some of the pressure and help recover local populations on Wildlife Management Area and National Forest lands in Alabama. A cooperative field study of Wild turkeys looking at populations in relation to predators and habitats on the Shoal Creek District (through Auburn University) was initiated in 2018-19. The initial phase of the study was completed in 2021 and results were presented by the researchers to forest and district personnel.
- The Boggy Hollow Quail Focal Area on the Conecuh Ranger District continues to see continued hunting use and call counts there suggest quail populations remain stable. Non-formal quail emphasis areas have been established on other districts including the Bankhead and Shoal Creek.
- The Southern Region has been working since 2019 to migrate from the Oracle based R8 Bird database to a new database housed by the Klamath Bird Observatory. Therefore, specific data for MIS birds will not be available for this report. However, from springtime field observations by the forest biologist, birds associated with dry open pine woodlands (prairie warbler and brown-headed nuthatch) appear to be stable on NF lands. Scarlet tanager and Pileated woodpecker also appear to be doing fine according to casual observations. Wood thrushes were consistently detected in their appropriate habitats (moist shaded mixed woods) on a typical frequency during the spring sample dates. Swainson's thrush is an uncommon species in the state and continues to be infrequently detected.

Figure 5. Prairie warbler in early seral habitat on the Shoal Creek Ranger District. USDA Forest Service photo.

Recommended Changes

No changes have been identified.

Visitor Use, Satisfaction, and Progress on Recreation Objectives

Summary

Recreation activities provide enjoyment for millions of national forest and grassland visitors. Recreation improves physical and mental health and helps people connect with the outdoors. Participation in recreational activities is how most of us experience our national forests and grasslands.

NFsAL offers a rich variety of year-round recreational opportunities and is home to many spectacular natural features, including more than 41,000 acres of designated wilderness and about 386 miles of trails. Several ponds and reservoirs offer great fishing for bass, bream, crappie, and catfish. Several miles of stream contain bream and bass including the "trout of the south" or red-eye bass.

Figure 6. Stairway to Heaven-Pinhoti Trail-Cheaha Wilderness. USDA Forest Service photo.

There were also some additions to the quality of services. Replaced several trail shelters roofs on the Pinhoti National Recreation Trail. Installed precast concrete shooting tables. Replaced and installed a new well pump at Coleman Lake Campground. Painted the interior of the Loop A & B Bathhouse at Coleman Lake Campground.

Monitoring Questions

- MQ 9. Are high quality, nature-based recreation experiences being provided and what are the trends?
- MQ 10. What are the status and trends of recreation use impacts on the environment?
- MQ 11. What is the status and trend of wilderness character?
- MQ 12. What are the status and trend of Wild and Scenic River conditions?
- MQ 13. Are the scenery and recreation settings changing and why?

Key Results

Table *5* displays recreation projects by unit and decision date. These projects are designed to enhance or improve the recreation experience either directly by improving or providing additional facilities or indirectly by improving the recreation setting. These projects are also designed to reduce the impacts of recreation activities on the resources.

Table 5. Recreation/Infrastructure/Facilities Projects by Unit and Decision Date

Project	Project Purpose	Decision Type	Unit	Decision
2019 Shake-n-Brake Gravel Grinder	Recreation (Bicycle Ride), SU	DM	Shoal Creek	10/08/2019
2020 Make a Wish Hike Talladega	Recreation (Foot Race), SU	DM	Talladega	11/05/2020
2020 Rockin Choccolocco 50K and Half Marathon Endurance Race	Recreation (Foot Race), SU	DM	Shoal Creek	06/03/2020
2021 Rockin Choccolocco 50K and Half Marathon	Recreation (Foot Race), SU	DM	Shoal Creek	06/14/2021
2019 Pinhotie 100 Ultra Marathon Trail Race	Recreation (Foot Race), SU	DM	Shoal Creek	10/31/2019
2021 Cheaha Challenge	Recreation, SU	DM	Shoal Creek	05/31/2021
Mt Cheaha 50K	Recreation, SU	DM	Shoal Creek	02/28/2020
2019 Pinhoti 100 Ultra Marathon Trail Race Ride	Recreation (Foot Race), SU	DM	Shoal Creek	096/10/2020
2020 Shake-n-Brake Gravel Grinder	Recreation (Bicycle Ride) SU	DM	Shoal Creek	10/26/2020
2020 Skyway Epic Gravel Road Bicycle Race	Recreation (Bicycle Ride) SU	DM	Talladega	09/24/2020
2017 Cheaha Challenge - Northeast Alabama Bicycle Association	Recreation, SU	DM	Shoal Creek	05/18/2017
2017 Helispot	Facilities management	DM	Shoal Creek	09/07-2017
2020 Rebecca Mountain 50-mile Race	Recreation, Trails, SU	DM	Talladega	09/10/2020
2021 Skyway Epic Gravel Road Bicycle Race	Recreation (Bicycle Ride), SU	DM	Talladega	04/02/2021
Conecuh Hiking Trail Bridge Maintenance/Repair/Replacement	Recreation, Trails	DM	Conecuh	08/31/2021
Bartram National Recreation Trail Bridge Replacement	Recreation, Trails	DM	Tuskegee	06/16/2021
2021 Mt Cheaha 50K	Recreation, SU	DM	Shoal Creek	02/26/2021
2017 Southeast Endurance Riders	Recreation (Horse	DM	Shoal	04/12/2021

Project	Project Purpose	Decision Type	Unit	Decision
Association –yellowhammer Pioneer Endurance Ride	Trail), SU		Creek	

- Visitor satisfaction information helps managers decide where to invest in resources or to allocate resources more efficiently.
    - For indicator 1, the specialist will calculate the percent change in visitor use and satisfaction since the last report. It is possible that the Forests may want to evaluate the percent change in visitor use and satisfaction over a broader time, for a longer trend, and may look back at previous National Visitor Use Monitoring (NVUM) reports for these data.
    - For indicators 2 and 3, data will come directly from the NVUM report that describes changes in recreational activity by type over time and demographics of visitors. The evaluation of NVUM results will include a narrative to help interpret the patterns being observed. When interpreting NVUM results, forest staff should consider any circumstances that may have affected visitor use such as forest fires, floods, closures that may have created an unusual recreation use pattern for the year sampled.
- Motorized vehicle access is updated annually in August each year by publishing the Motorized Vehicle Use Map and may be found online at NFsAL - Motor Vehicle Use Map (usda.gov).
- Illegal cross country Off-Highway Vehicle (OHV) use is a continuing problem in certain areas of the forest even though cross-country OHV use has been prohibited for many years. Legal and illegal off-highway vehicle use is causing wide-spread soil degradation. User-created trails are contributing to soil disturbance and the spread of non-native species.
- Changes to the recreation setting occur through forest management, restoration, and non-native invasive treatments. Initially the changes may be perceived to be negative but the long-term results in healthier, more pleasing, better composed landscapes. The landscapes are moving towards a more naturally appearing diversity.
- The Class I Sipsey Wilderness air monitoring station has been maintained for FY2020 and FY2021.
- The status and trend of Wild and Scenic River conditions remains unchanged.

Recommended Changes

Based on these results, we are considering the following possible changes:

- Continue coordination with law enforcement concerning illegal cross country OHV use.

Social, Economic, and Cultural Sustainability

Summary

Providing for ecological sustainability is a core responsibility for the Forest Service in maintaining the long-term health and productivity of national forests. Ensuring that our national forests have ecological integrity means that they will be resilient and will help provide people and communities with a range of social, economic, and ecological benefits now and into the future.

Figure 7. The Shoal Creek Church is a historical site in the Talladega National Forest. USDA Forest Service Photo.

Benefits from national forests and grasslands improve the quality of our lives. Some benefits, such as timber, have an easily identifiable monetary value. Others, such as cultural heritage, have tangible forms of value, such as artifacts, buildings, and landscapes, and intangible forms of value that support value systems, beliefs, traditions, and lifestyles.

All historic properties that are eligible, potentially eligible, or may suffer an adverse effect from one of our undertakings are protected. This usually takes the form leaving the property in situ and creating a special exclusion zone where personnel and equipment are prohibited from entering. If an undertaking cannot be adjusted, and the historic property will suffer an adverse effect, a memorandum of agreement (MOA) is created by the NFsAL with invited consulting parties to determine the best way to mitigate the affect upon the property.

The NFsAL Heritage personnel are included at the planning and implementation stage of an undertaking to determine how the undertaking will potentially affect the known historic properties, and potential historic properties, located within the NFsAL. The forest supervisor consults with the State Historic Preservation Office and federally recognized tribes on each project prior to a decision being made.

This monitoring category is comprised of questions about heritage sites and related to the 2012 Planning Rule about the contribution of national forests toward social, economic, and cultural sustainability. This monitoring is conducted and reported by the Southern Region as part of the broad-scale monitoring requirements in the 2012 Planning rule. The following results reflect updates from data collected from 2020-2021. New information collected or compiled from the last evaluation report 2020 has been evaluated. The “Broad-Scale Socioeconomic Monitoring Evaluation Report for the Southern Region” is posted at: Broad-Scale Socioeconomic Monitoring Evaluation Report for the Southern Region (usda.gov)

Monitoring Questions

- MQ 14. Are heritage sites being protected?
- MQ 23. What changes are occurring in the social, cultural, and economic conditions in the areas influenced by national forests in the region?

Key Results

- The NFsAL completes 106 field work and related reports via contracts, agreements and inhouse in support of resource management activities. During FY 2020 approximately 6,700 acres were surveyed across NFsAL with 38 archaeological sites recorded. During Fiscal Year 2021 approximately 11,000 acres were surveyed across the NFsAL with 25 archaeological sites recorded. The above acreage indicates that heritage surveys performed are in a wave-like pattern as it relates to acreage investigated (see heritage survey numbers from Fiscal 2018 and 2019). This wave pattern can be somewhat attributed to pandemic protocols introduced in the late winter of 2020. Irrespective of pandemic protocols, and imposed telework status, the NFsAL Heritage shop made considerable progress in evaluating the landscape for historic properties. Some advancement was made regarding monitoring known Priority Heritage Assets (PHA) as well as determining which newly recorded sites meet the criteria for becoming PHA.
- NFsAL had the third highest unemployment rate in Region 8.

Table 6. Socioeconomic indicators and comparison of NFsAL with Region 8.

Indicator	Region 8	NFsAL	Finding
Population Change	Increased 17%	Increased 4%	Increased population growth places more demands on resources, and this should be watched carefully.
Unemployment Rate	5.1%	6.5%	Corresponds between resident's skills and employment opportunities.
Population below poverty level	18%	21%	Changes or restrictions to forest users may affect individuals depending on local resources. Poverty levels are higher in the Region and NFsAL than the national average.
Payments to Counties	$2.08 average payment per acre	$2.34 average payment per acre	Payments contribute to employment and labor to counties where forests are located.
Expenditures	Salaried: $186,358,415.40 Non-Salaried: $124,584,883.09	Salaried: $1,742,580.92 Non-Salaried: $7,186,656.96	Expenditures contribute to economic activity surrounding the forests. Fluctuating budgets present challenges to accomplishing forest plan goals and objectives, but also provide opportunities for efficiencies in utilizing available funds.

Recommended Changes

- A revision to the Forest Plan that would indicate a minimum number of staff that would keep the shop in compliance with the plan.
- We are not considering any possible changes for cultural resources.
- Continue to utilize all available sources of funding to accomplish program goals.

Progress Toward Meeting Forest Plan and Objectives

Summary

We manage the forests to be healthy and diverse, with appropriate variability in tree species, sizes, and ages. This helps provide a stable and sustained flow of habitat conditions, recreational settings, and timber products. To achieve this, we need an understanding of the abundance and distribution of various forest types, such as oak woodland or pine. Several management objectives are tied to percentage of each type, age class distribution within type, and treatment acres for each.

Monitoring allows managers to identify forest types that are under-represented across the landscape and areas where the pace and scale of treatment does not meet the desired goals.

Figure 8. Longleaf seedlings.

Minerals

The FEIS for the Forest Plan refers to the BLMs Reasonable and Foreseeable Development (RFD) scenario which provides a projection of anticipated oil and gas exploration and/or development activity. The RFD predicts 1 oil/gas well on the Bankhead Forest, 1 oil/gas well for the Talladega National Forest and 10 oil/gas wells for the Conecuh National Forest for the first 10 years of the Forest Plan.

Only one Application for Permit to Drill (APD) has been authorized since the Forest Plan was signed in 2004. During FY 2018 one decision was signed for "speculation", The Yellow River 3D Seismic Survey project decision was signed in November 2017.

Monitoring Questions

- MQ 17. How do actual outputs and services compare with projected?
- MQ 19. Are Forest Plan objectives and standards being applied and accomplishing their intended purpose?

Key Results

Timber and Vegetation Management

- Vegetation management treatments including fire, timber harvest, tree planting, and non-native invasive species (NNIS) treatments contribute to the composition, structure, and function of major forest communities including rare communities. **Table *7*** presents a summary of acres of vegetation management treatments by activity to meet forest plan goals.

Table 7. Forest-wide Acres of Vegetation Management Treatments

Activity	FY 2020 (Acres)	FY 2021 (Acres)
Burning	92,184	152,946
Hogs	5,324	7,143
Natural Regeneration	72	7
NNIS	1,436	1,173
Pre-commercial thinning	105	0
Release	1,475	703
Site preparation (excludes burning)	972	849
Timber Harvest – Regeneration	1,023	50
Timber Harvest – Thinning	612	138
Tree Planning	1,297	849

- Timber outputs for final harvest (regeneration) are lower than projections for volume and acres for the second period (10 years). However, the total volume sold has fluctuated for the last five years but has generally increased. The thinning acres are higher than projected due to the ecological (SPB suppression, RCW habitat, longleaf restoration, woodland/savanna restoration, etc.) needs. **Table *8*** displays the timber volume sold outputs as reported in the data base of record for the 2nd period, in comparison to the projected outputs.

Table 8. Forest Plan Projected Timber Volumes and Harvested Acres for the Second 10-years Compared to Actual Timber Volumes Sold and Acres.

	10 Years Projected – 2nd Period	FY2015-2019	FY 2020	FY 2021	Total	% of projected
Timber Volume Sold (Cubic Feet)	155,800,000	38,741,894	8,153,400	5,514,000	52,409,294	34%
Acres Thinned	18,425	19,174	612	138	19,924	108%
Acres Final Harvest	31,775	6,431	1,023	50	7,504	24%

Prescribed Burning

- The forest plan projected a total 944,040 acres of possible prescribed burning for the first planning period (years 1-10). The total acres prescribed burned in FY 2020 are 92,184 and FY 2021 are 152,946.
- COVID pandemic restrictions inhibited the availability to complete the annual fire management preparedness reviews.
- Developed system for more efficiency in notifying public of and the tracking of RX treatments by providing day of burn information both visually and in written form using google maps platform.
- Developed new fire danger pocket cards. Developed first ever fire danger operating plan with coordination between NPS, FWS, BIA, BLM, and AFC.

Minerals

- The BLM and Conecuh National Forest are currently in the process of preparing a new RFD scenario and oil and gas leasing availability analysis to address more recent demand for oil and gas exploration and/or development activity. The existing RFD scenario is subject to change based on recent findings.
- During FY2020 and FY2021, no decisions were signed authorizing an Application for Permit to Drill (APD).
- There has been expressed interest in oil and gas exploration on the Conecuh National Forest and hard rock mineral, such as cobalt, exploration on the Talladega National Forest. However, the National Forests in Alabama have not received any formal requests from the BLM to provide a decision or surface concurrence at the moment.

Forest landline

- Landlines and corners are repainted/maintained on a 35-year rotation instead of 8–10-year schedule.
- Approximately 40-70 miles are maintained annually and there are approximately 2,000 miles of landlines on the NFsAL.

Recommended Changes

Based on these results, we are considering the following possible changes:

- Maintain or increase projected acres thinned in future planning periods to better reflect ecological need.
- Continue Forest Plan Amendment analysis process to reconsider the lands available for leasing as well as the stipulations that would apply.

Effects of Management Systems Sustainability

Summary

Figure 9. Example of natural regeneration on Shoal Creek Ranger District. USDA Forest Service photo.

Management activities can have a negative effect on the productivity of the land. It is important to monitor for any signs of degradation for habitat and watershed conditions. Silviculture practices should be mindful of maintaining site productivity and timber production should be based on sustainable levels. Many forest plan goals and objectives are met through vegetation management using silvicultural practices such as timber harvesting, site preparation, timber stand improvement and tree planting. Forest plan standards along with forest service handbooks and manuals provide the direction on how these practices are applied. Field reviews, spot checks and annual reports are utilized to monitor the compliance with this direction. Additionally, prior to implementing decisions, the decision documents (**Table *11***) are reviewed for compliance with the forest plan.

Monitoring Question

- MQ 18. Are silvicultural requirements of the Forest Plan being met?

Key Results

- Reviews, spot checks, and reporting (FACTS) indicate that silvicultural practices and project decisions are following the forest plan.
- Only a total of 12 small Southern Pine Beetle (SPB) spots across NFsAL due to good forest management practices. Good timber harvesting methods, thinning and regeneration cuts when needed have allowed the NFsAL to have minimal outbreaks.
- Integrated resource reviews are planned for two districts annually.

Recommended Changes

No changes have been identified.

Climate Change

Summary

In the last decade, the United States has experienced new records for extreme temperature, drought, storms, and fire. These events affect millions of Americans and pose a growing threat to the resilience of communities, as well as the services that flow from the nation's forests and grasslands. The Forest Service is working to mitigate the effects of climate change using the best available science and information. Our goal is to ensure we continue to deliver the products and services that the public values, and work to sustain ecological conditions on our national forests and grasslands.

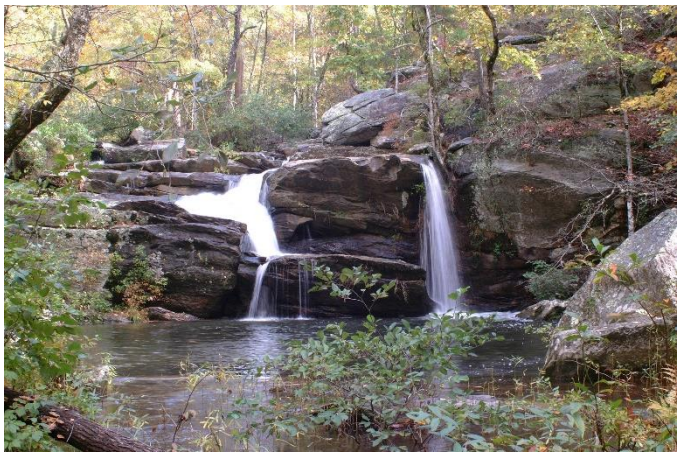


Figure 10. Waterfall on the Talladega National Forest. USDA Forest Service photo.

This monitoring category is comprised of a question related to the 2012 Planning Rule about how climate variability has changed, the influence of climate change on the plan area, and effects of national forests on climate change. This monitoring is conducted and reported by the Southern Region as part of the broad-scale monitoring requirements in the 2012 Planning rule. The following results reflect updates from data collected from 2020-2021. New information collected or compiled from the last evaluation report 2020 has been evaluated. The "Broad-Scale Climate Change Monitoring Evaluation Report for the Southern Region" is posted at: Broad-Scale Climate Change Monitoring Evaluation Report for the Southern Region (usda.gov)

Monitoring Questions

- MQ 20. How has climate variability changed and how is it projected to change across the region?
- MQ 21. How is climate variability and change influencing the ecological, social, and economic conditions and contributions provided by plan areas in the region?
- MQ 22. What effects do national forests in the region have on a changing climate?

Key Results

The "Broad-Scale Climate Change Monitoring Evaluation Report for the Southern Region" focused on scenarios of low-level and high-level emissions. For the NFsAL monitoring report, the potential threats and recommendations from those assessments are listed here.

Table 9: Potential threats and recommendations from the "Broad-Scale Climate Change Monitoring Evaluation Report for the Southern

Region" for the NFsAL considerations.

Potential Threats	Impacts from a changing climate	Potential mitigations to consider during future planning efforts
Non-native Invasive Species **Biological Diversity**	Invasive and aggressive plant and insect species may increasingly outcompete or negatively affect native species in the future. Winter freezes currently limit many forest pests, but higher temperatures will likely allow these species to increase. Destructive insects, such as southern pine beetle will be better able to take advantage of forests due to factors such as increased drought. Certain invasive plant species found in these forests, including kudzu are expected to increase dramatically as they are able to tolerate a wide range of harsh conditions, allowing them to rapidly move into new areas.	Manage tree densities through practices such as thinning and prescribed fire to maximize carbon sequestration and reduce the vulnerability of forest stands to water stress, insect and disease outbreaks, and fire. Monitor for new invasive species moving into areas where they were not traditionally found, especially following events such as hurricanes and fire.
Forest Health – **Animal Communities**	Wildlife species will be affected in different ways. Amphibians may be most at risk, due to dependencies on moisture and cool temperatures that could be altered. The endangered gopher tortoise will likely be severely affected by increasing drought conditions due to climate change. Bird species, such as red cockaded woodpeckers, may see a decrease in population as vegetation types change and heat stress makes food more difficult to come by.	Maintain piles of natural woody debris in areas of high amphibian diversity to supplement habitats that retain cool, moist conditions. Create habitat corridors, assist in species movement, increase national forest management unit sizes, and identify high-value conservation lands adjacent to national forests.
Forest Health – **Plant Communities**	Heat stress may limit the growth of some southern pines and hardwood species. Stresses from drought and wide- scale pest outbreaks have the potential to cause large areas of forest dieback. Intensified extreme weather events, such as hurricanes, ice storms, and fire, are also expected to lead to changes in plant community composition. Species more resistant to these disturbances, such as longleaf pine, will be more resilient to a changing climate. Populations of other plants, including the endangered Alabama leather flower, will be particularly vulnerable to drier conditions.	Focus restoration efforts on hurricane-resistant forests, such as longleaf pine as well as sweetgum or red oak hardwood and promote the planting of longleaf pines over loblolly pine where feasible. Include a range of ages and species in forests to lessen potential loss from drought or infestation.

Potential Threats	Impacts from a changing climate	Potential mitigations to consider during future planning efforts
Forest Health – Water Resources	Shifts in rainfall patterns will lead to periods of flooding and drought that can significantly impact water resources. Increases in heavy downpours and more intense hurricanes can lead to greater erosion and more sedimentation in waterways. Increased periods of drought may lead to poor water quality.	Focus attention on and near smaller, isolated water systems that are more vulnerable and may not be able to absorb and benefit from wildfires and heavy rains that cause large floods or debris flow. Relieve groundwater and large reservoir use when there is ample surface water during wet periods or times of high-water flow to recharge aquifers, provide temporary irrigation, decrease stored sediment loss, and construct small reservoirs.
Recreational Use and Satisfaction	Environmental changes may negatively impact recreational experiences due to changes in the plant and animal communities that make those experiences unique. More days above freezing could increase tick and mosquito populations throughout the year, leading to an increase in vector-borne illness. With more days of extreme heat, recreation areas could see decreased use in the summer if temperatures impact visitor comfort.	Communicate early warnings for extreme weather to protect vulnerable groups from health impacts, such as heat illnesses, and monitor for early outbreaks of disease
Extreme Weather	The potential for severe storms is expected to increase in the future, including more intense hurricanes making landfall in the southern US. Extended periods of extreme high temperature and drought may lead to drier forest fuels which will burn more easily and contribute to larger and more frequent wildfires. More cloud-to-ground lightning due to warming may also increase wildfire ignitions.	Identify areas that provide particularly valuable ecosystem services, like timber harvest or carbon sequestration, and are also vulnerable to extreme weather, like hurricanes or fires. Then plan conservation strategies accordingly to mitigate for extreme weather impacts and payment for ecosystem service programs. Prescribed burning can also be a management option for reducing the impacts of any future increases in wildfire potential emanating from climate change.

Recommended Changes

In the short-term, there is no need for change in the NFsAL plan direction, management activities, or monitoring arising from this evaluation. Periodic evaluation (about 5 years) of the climate monitoring should continue to detect any changes not currently projected as models improve. The significant changes in temperature should be considered in future long-term planning efforts, including those that apply to ecological systems and recreation uses on the national forests, especially within the Southern Region.

Summary Table

Table 10: Summary of recommended changes for each of the 23 monitoring questions.

Monitoring Question	Progress toward land management plan desired conditions or objectives	Recommendation
MQ1. Are rare communities being protected, maintained, and restored?	Uncertain for all communities, however using RCW population growth as indicator those rare communities associated with open, fire-maintained pine would be benefitting from the increased burning and vegetation treatments across the Forest. Limited individual site visits have shown stable rare plant populations.	Continue with burning and forest vegetation management. Increase surveys and monitoring for rare communities.
MQ2. Are landscape-level and stand-level composition and structure of major forest communities within desirable ranges of variability?	Yes, fire-maintained pine communities are benefitting from the increased burning and vegetation treatments across the Forest.	No change needed.
MQ3. Are key successional stage habitats being provided?	Yes, in pine habitats using RCWs as indicators suggests older mature trees are being retained and appropriate midstory and herbaceous understory components are being maintained.	Mitigation for prevention and control of NNIS should continue to be a part of every project planning process.
MQ4. How well are key terrestrial habitat attributes being provided?	Using RCW population growth as indicator, open fire-maintained pine habitats are being maintained and provided across the Forest.	Continue current management activities.
MQ5. What is the status and trend in aquatic habitat conditions in relationship to aquatic communities?	The effect of aquatic habitat and aquatic communities remained constant with the implementation of the Forest Plan.	No change needed.
MQ6. What are status and trends of forest health threats on the forest?	There is an increase of feral swine damage to native wildlife and their habitats. Invasive plants continue to be a challenge and a slight increase of accomplished acreage.	Mitigation for prevention and control of NNIS should continue to be a part of every project planning process. Continue monitoring for SPB activity and treat where the need arises.

Monitoring Question	Progress toward land management plan desired conditions or objectives	Recommendation
MQ7. What are the status and trends of federally listed species and species with viability concerns on the forest?	RCWs are increasing across all inhabited districts. Indigo snakes have been documented as reproducing in the wild and increasing. Harper's heartleaf and White fringeless orchid populations were observed to be stable during surveys in 2021. Uncertain for other species as monitoring was limited during COVID. Baseline surveys will continue to obtain population estimates, document suitable habitat, and to identify the range of the Rush Darter. Other aquatic communities remained constant.	Continue with federally listed and other rare species survey and monitoring.
MQ8. What are the trends for demand species and their use?	Harvest information shared by ADCNR Wildlife and Freshwater Fisheries suggest White-tail deer and Northern bobwhite populations are relatively stable across the forest while wild turkeys may be slightly decreasing, while seeing increased hunting pressures. Turkey hunting regulations have been adjusted by the state to address this increase in pressure and increase reproduction and recruitment. Remaining MIS bird species data is unavailable presently due to regional database migration.	Continue population and harvest data collection in partnership with ADCNR Wildlife and Freshwater Fisheries.
MQ9. Are high quality, nature-based recreation experiences being provided and what are the trends?	Yes, recreation projects are designed to enhance or improve the recreation experience and/or setting.	No change needed.
MQ10. What are the status and trends of recreation use impacts on the environment?	User-created trails are contributing to soil disturbance and the spread of non-native species.	Continue coordination with law enforcement concerning illegal cross country OHV use.
MQ11. What is the status and trend of wilderness character?	Yes, monitoring results indicate that we are meeting targets.	No change needed.
MQ12. What are the status and trend of Wild and Scenic River conditions?	Unchanged.	No change needed.
MQ13. Are the scenery and recreation settings changing and why?	Tsinia wildlife viewing area has been decommissioned and some improvements removed, however the Forest Plan Management Prescription has not been changed to reflect the management of the area.	Update forest plan. Update monitoring program.

Monitoring Question	Progress toward land management plan desired conditions or objectives	Recommendation
MQ14. Are heritage sites being protected?	At present the NFsAL Heritage shop follows the Forest Plan.	A revision to the Forest Plan that would indicate a minimum number of staff that would keep the shop in compliance with the plan.
MQ15. Are watersheds maintained (and where necessary restored) to provide resilient and stable conditions to support the quality and quantity of water necessary to protect ecological functions and support intended beneficial uses?	Monitoring occurred on a regular basis and indicated that forest plan intent was consistently met.	Increase the number of priority watersheds with established watershed restoration action plans (WRAP).
MQ16. What are the conditions and trends of riparian area, wetland and floodplain functions and values?	Uncertain.	New projects need to consider management of riparian areas as per forest plan direction (Objective 8.2).
MQ17. How do actual outputs and services compare with projected?	FACTS database results indicate that we are meeting objectives as planned.	Continue to utilize silvicultural examination and prescription process to accomplish program goals.
MQ18. Are silvicultural requirements of the Forest Plan being met?	Yes, the requirements are being met and reported in the forest service official tracking system Forest Service Activity Tracking System (FACTS).	
MQ19. Are Forest Plan objectives and standards being applied and accomplishing their intended purpose?	Yes, The Forest Plan objectives and standards are being applied and the accomplishments are being reported in the forest service official tracking system Forest Service Activity Tracking System (FACTS).	Update forest plan to align current goals with current output.
MQ20. How has climate variability changed and how is it projected to change across the region?	Uncertain. Heat stress and shifts in rainfall patters will impact the growth of plant communities and increase flooding and drought events.	Update forest plan. Update monitoring program.

Monitoring Question	Progress toward land management plan desired conditions or objectives	Recommendation
MQ21. How is climate variability and change influencing the ecological, social, and economic conditions and contributions provided by plan areas in the region?	Uncertain.	Update forest plan. Update monitoring program.
MQ22. What effects do national forests in the region have on a changing climate?	Uncertain.	Update forest plan. Update monitoring program.
MQ23. What changes are occurring in the social, cultural, and economic conditions in the areas influenced by national forests in the region?	Alabama had the third highest unemployment rate within the Southern Region. Fluctuating budgets present challenges to accomplishing forest plan goals and objectives, but also provide opportunities for efficiencies in utilizing available funds.	Continue to utilize all available sources of funding to accomplish program goals.

Appendix A – Management Project

Table 11. Fuels, Vegetation Management and Watershed Project decisions signed during FY2020 and FY 2021.

Project Name	Project Purpose	Decision Type	Unit	Decision Date	Fiscal Year
2019 Bankhead Southern Pine Beetle Mitigation and Restoration Project CE	Insect and Disease – Forest Health	DM	Bankhead	12/2019	2020
2019 Supplemental Planting and Prescribed Burning CE	Forest products, Fuel management	DM	Shoal Creek and Talladega	12/2019	2020
Taylor Mill/Sherman Cliff Environmental Assessment	Forest products, Vegetation management	DN	Talladega	8/2020	2020
Tributary of Brushy Creek Crossing at Forest Service Road 254	Watershed management	DM	Bankhead	11/2020	2021
Bankhead National Forest Powerline Area Erosion Control CE	Watershed management	DM	Bankhead	6/2021	2021
Cave Mountain Restoration Project	Forest products, Vegetation management	DM	Oakmulgee	5/2021	2021
South Sandy Restoration	Forest products, Vegetation management	DM	Oakmulgee	5/2021	2021
2021 Hurricane Zeta Restoration	Insect and Disease – Forest Health	DM	Talladega	3/2021	2021

Appendix B – Deer Harvest Summary

Table 12. Number of harvested deer reported by Alabama Dept. of Conservation and Natural Resources (2020-2021 and 2021-2022 seasons) for the NFs in Alabama Districts by county (top) and for WMA by county (bottom).

National Forest	County	21-22			20-21		
		Bucks	Does	Total	Bucks	Does	Total
Bankhead National Forest	Lawrence	31	12	43	35	9	44
	Winston	90	40	130	100	47	147
	Franklin	1	0	1	2	0	2
Conecuh National Forest	Covington	41	23	64	43	19	62
	Escambia	36	27	63	42	37	79
Talladega National Forest	Calhoun	17	3	20	19	3	22
	Cleburne	29	3	32	38	8	46
	Clay	10	3	13	20	7	27
	Talladega	43	7	50	41	12	53
	Bibb	45	14	59	44	29	73
	Chilton	37	10	47	18	9	27
	Dallas	4	2	6	4	5	9
	Hale*	0	0	0	0	0	0
	Tuscaloosa	10	2	12	15	7	22
Tuskegee National Forest	Macon	33	12	45	37	15	52

*Hale was not an option for Talladega NF harvest reporting in Game Check during 20-21 and 21-22 seasons

WMA	County	21-22			20-21		
		Bucks	Does	Total	Bucks	Does	Total
Black Warrior	Lawrence	60	15	75	50	17	67
	Winston	37	14	51	42	12	54
Blue Spring	Covington	68	20	88	39	16	55
Choccolocco	Calhoun*	41	13	54	0	0	0
	Cleburne	95	22	117	82	50	132
Hollins	Clay	44	23	67	37	11	48
	Talladega	61	5	66	8	6	14
Oakmulgee	Bibb	42	41	83	75	40	115
	Hale	48	33	81	80	39	119
	Perry	4	8	12	3	3	6
	Tuscaloosa	9	7	16	12	9	21

*Calhoun was not an option for Choccolocco harvest reporting in Game Check during 20-21 season

Appendix C – Contributors

Resources Specialist	Role
Brian Waldrep	Timber Contracting Officer
Dagmar Thurmond	Staff Officer for Natural Resources and Planning
Estella Smith	Forest Soil Scientist
Eugene Brooks	Forest Silviculturist
Garner Westbrook	Lands Unit Leader
John Moran	Forest Fisheries Biologist
LaToya Soto	Acting Forest Environmental Coordinator
Marcus Ridley	Forest Archaeologist
Ryan Shurette	Forest Wildlife Biologist
Shantaé Guy	Forest Engineer
Stanley Glover	Forest GIS Coordinator

Appendix D – Public Affairs Infographics

ALABAMA
NATIONAL FORESTS

Fiscal Year 2020 Accomplishments

The National Forests in Alabama are part of the USDA Forests Service's National Forest System. There are 4 National Forests and 6 Ranger Districts. The Forests date back to the early 1900's and contain over **670,844 acres of public land.**

$18,771,234
2020 ALABAMA FOREST BUDGET

TIMBER SOLD

44,451 MBF
(thousand board feet)

81,534 CCF
(hundred cubic feet)

The total number of seedlings planted for the National Forests in Alabama in FY-2020 were 913, 414 of which 647,741 was longleaf and 225,673 shortleaf pine seedlings.

155 PERMANENT WORKFORCE

157 GOVERNMENT VEHICLES MAINTAINED

$80,701,810
166 SMALL BUSINESS CONTRACTS

16 TOTAL NEPA DECISIONS

Bankhead 4 Talladega 7 Shoal Creek 4
Oakmulgee 0 Tuskegee 1 Conecuh 0
Supervisor's Office 0

DESIGNATED TRAIL MILES

OVERALL TRAIL MILES **386 mi.**

- HIKING
- EQUESTRIAN
- OFF-ROAD VEHICLE
- MOUNTAIN BIKE

ACTUAL 386.3 mi.

MILES: 228.5 | 95.3 | 42.4 | 20.1

241.3
TRAIL MILES MAINTAINED
(receiving maintenance)

USFS MANAGED **28**

*ML = Maintenance Level
Download ML explanations (Travel Q&As) and Motor Vehicle Use Maps at http://fs.usda.gov/goto/alabama/kbyd

ROAD MILES MAINTAINED - 378.14 mi.

ML 2 – 94.12 mi. ML 4 – 108.87 mi.
ML 3 – 175.15 mi. *ML 5 – 0 mi.
*ML = Maintenance Level

NATIONAL FOREST RECEIPTS

OTHER RECEIPTS

LAND USE - **$7,780**
REC. SPECIAL USE - **$149** POWER - **$311**
TIMBER SALVAGE SALES - **$0**

DEVELOPED RECREATIONAL SITES

CULTURAL RESOURCES SURVEYS COMPLETED
13,580 acres

13
LAND USE PERMITS

$222,027
FEE DEMO RECIEPTS

79 Archaeological sites found
19 Historic Landscape Features

USFS LAW ENFORCEMENT

WARNINGS 822 | **INCIDENTS** 972
VIOLATIONS 209

109,693
ACRES REHABILITATED WITH CONTROLLED FIRES
52 wildfires burned **2,411 ACRES**

303 ACTIVE RED-COCKADED WOODPECKER CLUSTERS

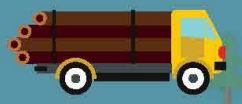
Oakmulgee - 154 **Conecuh** - 99
Talladega - 18 **Shoal Creek** - 32
Bankhead - 0 **Tuskegee** - 0

ALABAMA NATIONAL FORESTS

Fiscal Year 2021 Accomplishments

The National Forests in Alabama are part of the USDA Forests Service's National Forest System. There are 4 National Forests and 6 Ranger Districts. The Forests date back to the early 1900's and contain over **672,429 acres of public land.**

$17,977,722
2021 ALABAMA FOREST BUDGET



TIMBER SOLD

28,213 MBF
(thousand board feet)

55,140 CCF
(hundred cubic feet)

Throughout Alabama's national forests, we planted approximately 499,048 longleaf pine seedlings covering 466 acres and 78,996 shortleaf pine seedlings on 116 acres.

WILLIAM B. BANKHEAD
National Forest
182,015 acres

Talladega National Forest
TALLADEGA AND SHOAL CREEK DISTRICTS
235,425 acres

TALLADEGA
National Forest
394,511 acres
(all districts)

Talladega National Forest
OAKMULGEE DISTRICT
159,086 acres

TUSKEGEE
National Forest
11,348 acres

CONECUH
National Forest
84,555 acres

134 PERMANENT WORKFORCE

156 GOVERNMENT VEHICLES MAINTAINED

$2,683,868
130 SMALL BUSINESS CONTRACTS

21 TOTAL NEPA DECISIONS

Bankhead 6 Talladega 4 Shoal Creek 7
Oakmulgee 2 Tuskegee 1 Conecuh 1
Supervisor's Office 0

OVERALL TRAIL MILES
386 mi.

DESIGNATED TRAIL MILES

- HIKING
- EQUESTRIAN
- OFF-ROAD VEHICLE
- MOUNTAIN BIKE

ACTUAL 386.3 mi.

MILES
228.5 | 95.3 | 42.4 | 20.1

263.6
TRAIL MILES MAINTAINED
(receiving maintenance)

USFS MANAGED
28

***ML = Maintenance Level**
Download ML explanations (Travel Q&As) and Motor Vehicle Use Maps at **http://fs.usda.gov/goto/alabama/kbyd**

ROAD MILES MAINTAINED - 501.96 mi.

ML 1 – 3.39 mi. **ML 3** – 185.65 mi.
ML 2 – 217.32 mi. **ML 4** – 95.06 mi.
*ML = Maintenance Level

NATIONAL FOREST RECEIPTS

- KNUTSON-VANDENBERG (HABITAT REGENERATION FUNDS) **$607,998**
- TIMBER **$ 377,048**
- 25% PAYMENTS TO STATES **$273,255**

OTHER RECEIPTS

LAND USE - **$91,804.87**
REC. SPECIAL USE - **$5,140.36** | POWER - **$13,253.37**
TIMBER SALVAGE SALES - **$13,662**

DEVELOPED RECREATIONAL SITES

CULTURAL RESOURCES SURVEYS COMPLETED
11,132 acres

9 LAND USE PERMITS
8 REC. SPECIAL USE PERMITS

52 Archaeological sites discovered (pre-historic and historic)

$235,172
FEE DEMO RECIEPTS

USFS LAW ENFORCEMENT

WARNINGS 617 | **INCIDENTS** 1,239
VIOLATIONS 258

152,926
ACRES REHABILITATED WITH CONTROLLED FIRES
26 wildfires burned **2,194 ACRES**

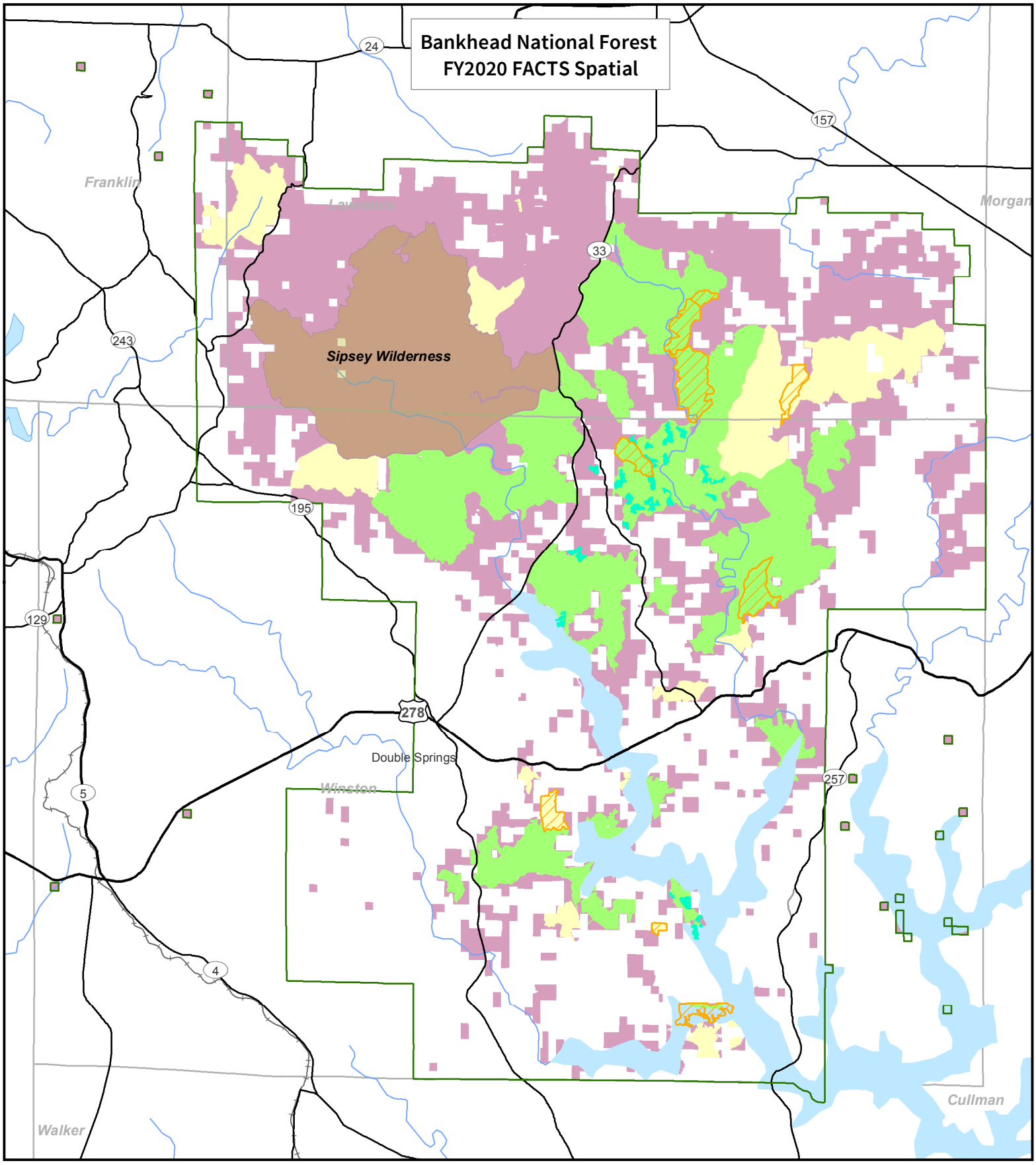
331 ACTIVE RED-COCKADED WOODPECKER CLUSTERS

Oakmulgee - 169 **Conecuh** - 101
Talladega - 23 **Shoal Creek** - 38
Bankhead - 0 **Tuskegee** - 0

Appendix E – Maps of Ecosystem Restoration and Maintenance Activities

USDA Forest Service
U.S. Department of Agriculture

Bankhead National Forest
FY2020 FACTS Spatial



FY2020 FACTS Spatial
- Prescribed Burning
- Regeneration

Core Areas
- Primary Core
- Secondary Core
- Tertiary Core

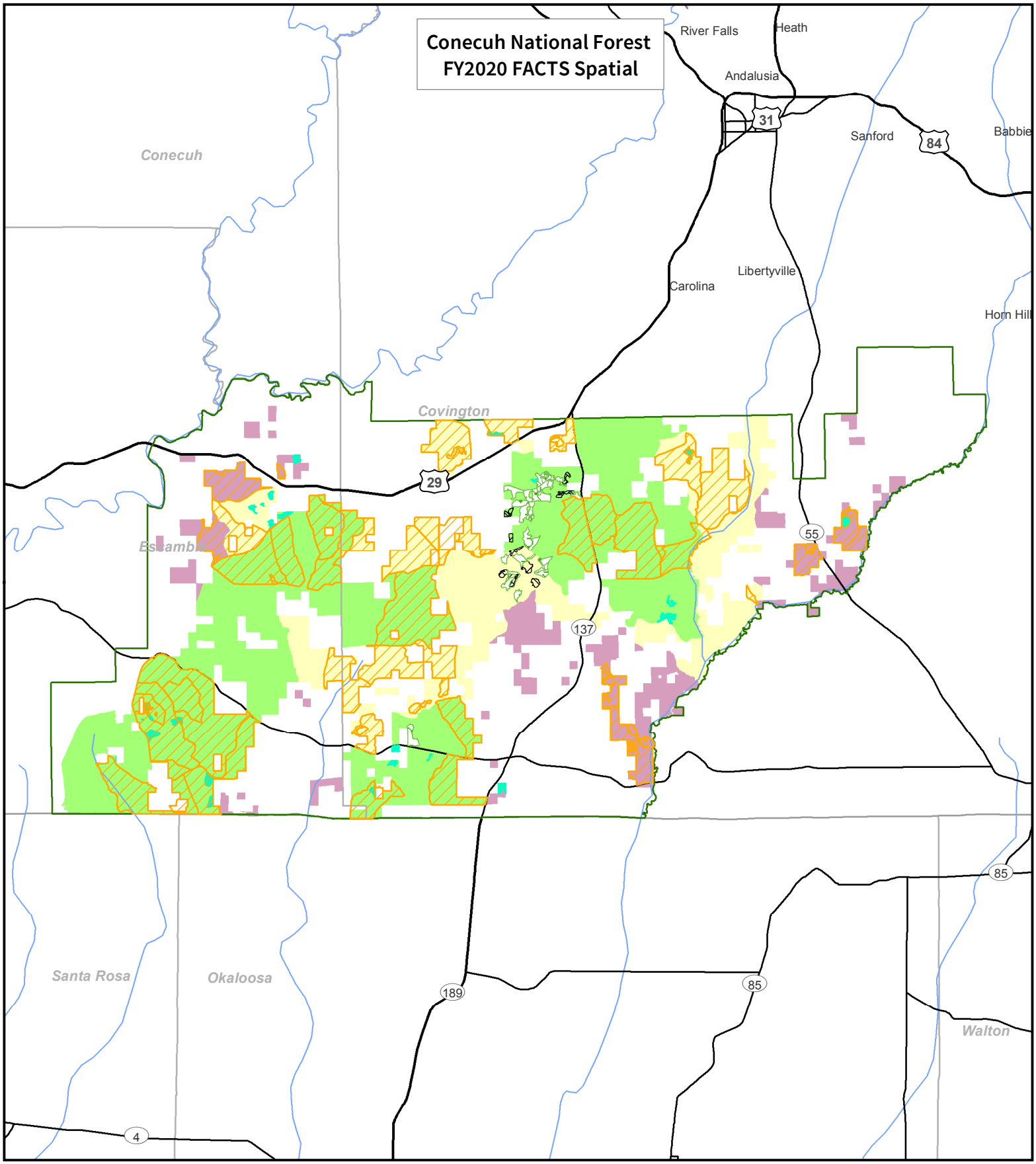
Wilderness

5/31/2022

0 1.5 3 Miles

USDA Forest Service
U.S. Department of Agriculture

Conecuh National Forest FY2020 FACTS Spatial



FY2020 FACTS Spatial
- Restoration
- Prescribed Burning
- Regeneration
- Overstory Thinned

Core Areas
- Primary Core
- Secondary Core
- Tertiary Core

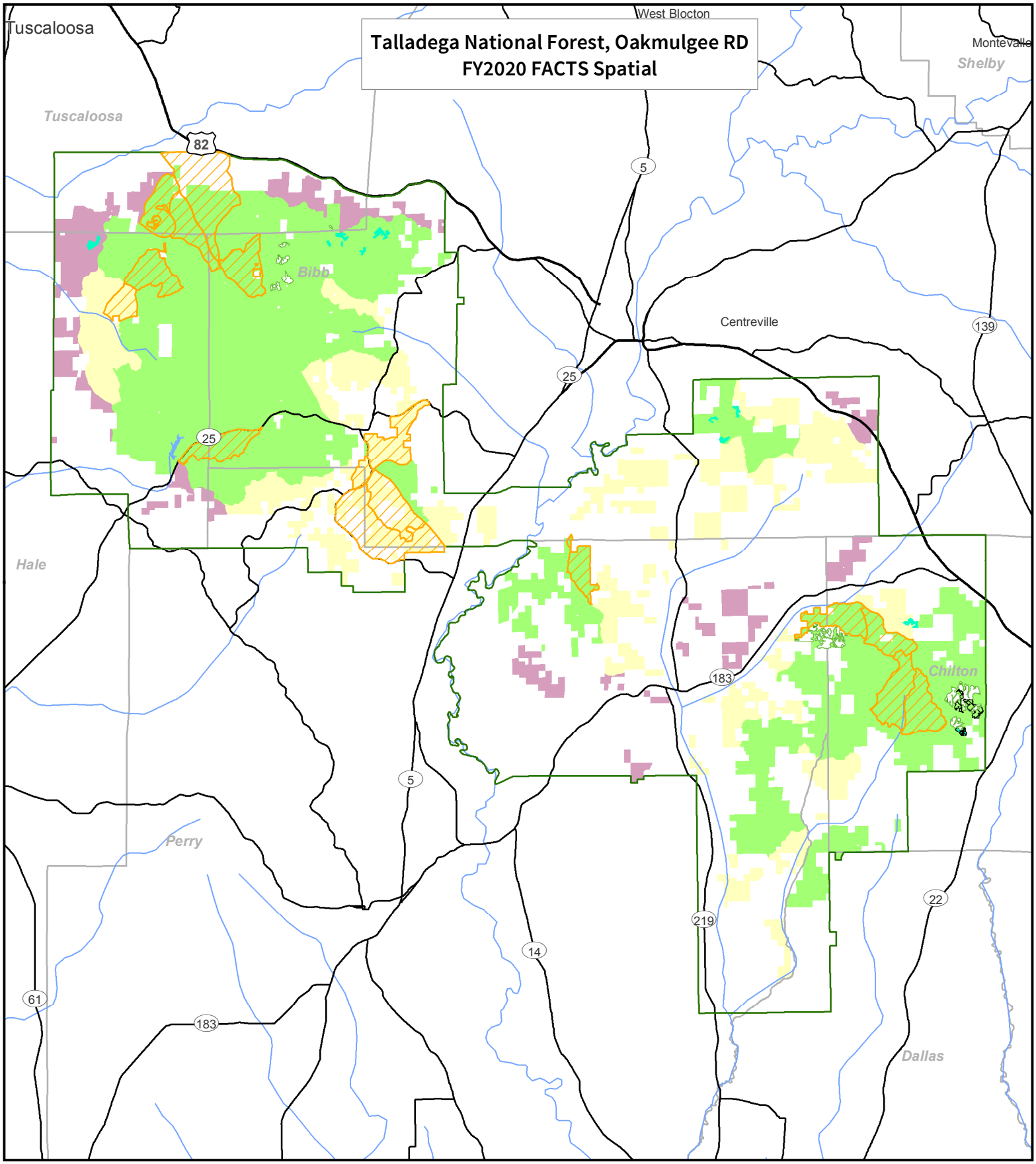
5/31/2022

0 2 4 Miles

USDA

Forest Service
U.S. Department of Agriculture

Talladega National Forest, Oakmulgee RD
FY2020 FACTS Spatial



FY2020 FACTS Spatial
- Restoration
- Prescribed Burning
- Regeneration
- Overstory Thinned

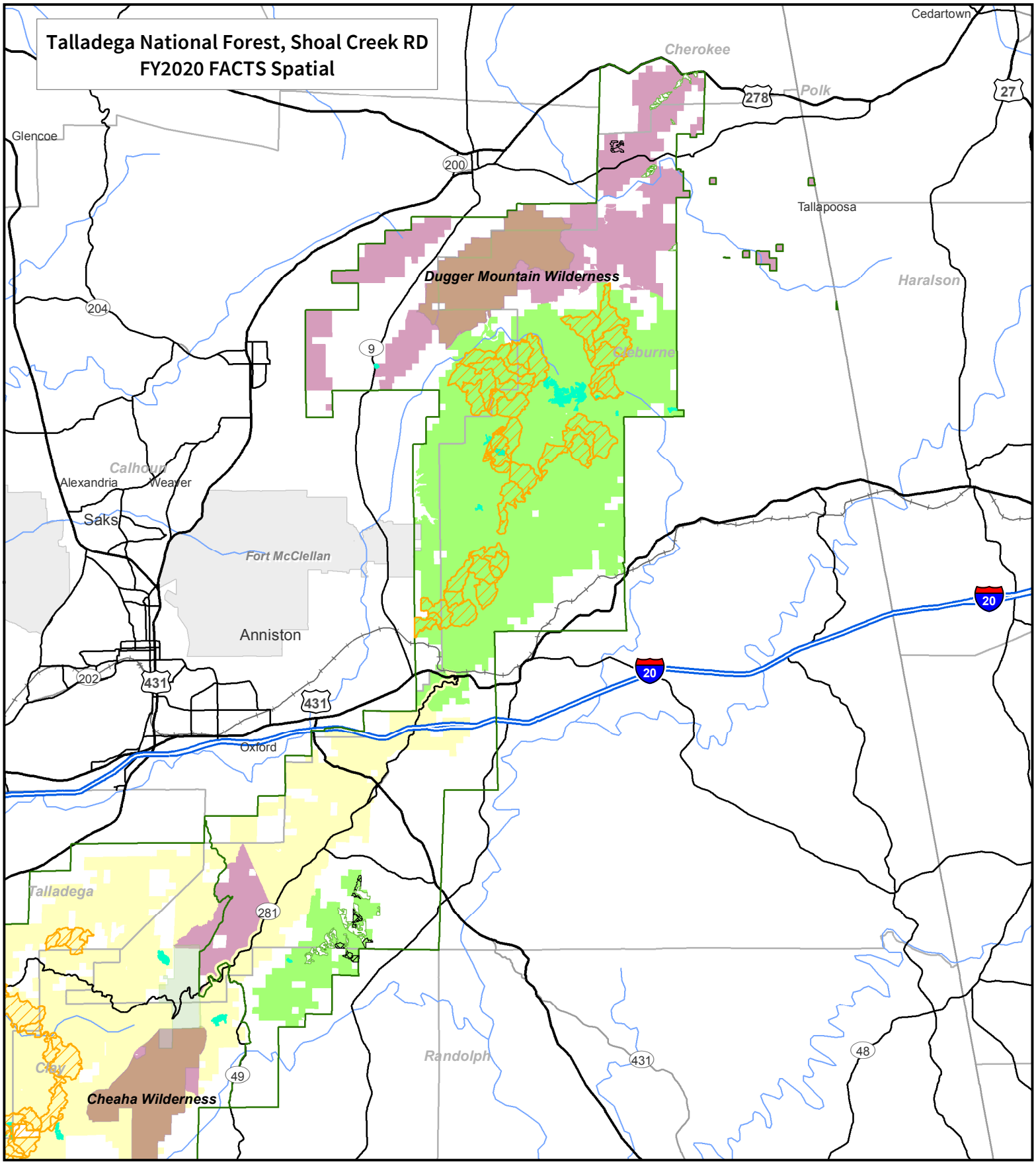
Core Areas
- Primary Core
- Secondary Core
- Tertiary Core

5/31/2022

0 2 4 Miles

USDA Forest Service
U.S. Department of Agriculture

Talladega National Forest, Shoal Creek RD
FY2020 FACTS Spatial



FY2020 FACTS Spatial
- Restoration
- Prescribed Burning
- Regeneration
- Overstory Thinned

Core Areas
- Primary Core
- Secondary Core
- Tertiary Core

Wilderness

Other Lands

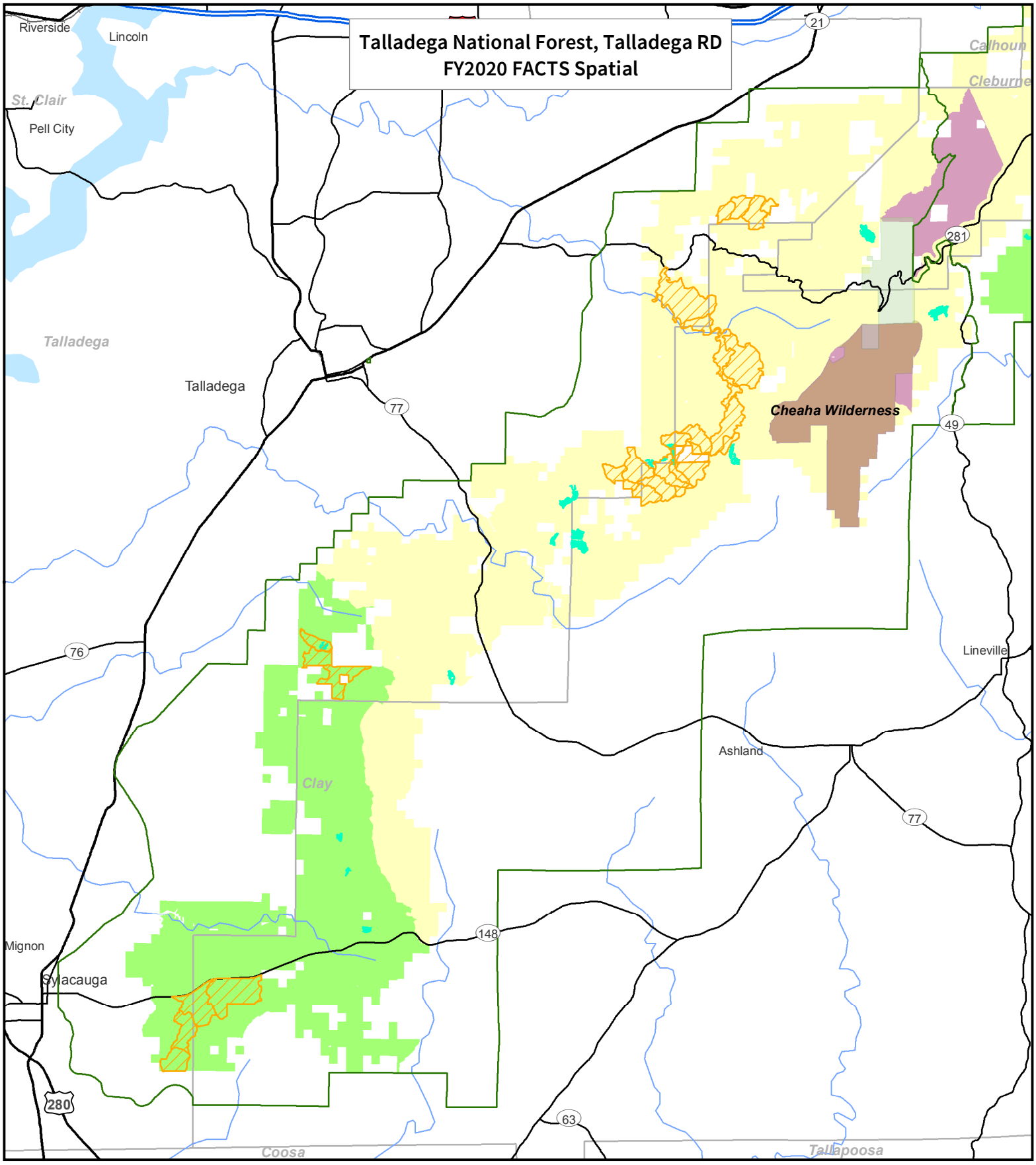
State Park

5/31/2022

0 2 4 Miles

USDA Forest Service
U.S. Department of Agriculture

Talladega National Forest, Talladega RD
FY2020 FACTS Spatial



FY2020 FACTS Spatial
- Prescribed Burning
- Regeneration

Core Areas
- Primary Core
- Secondary Core
- Tertiary Core

Wilderness

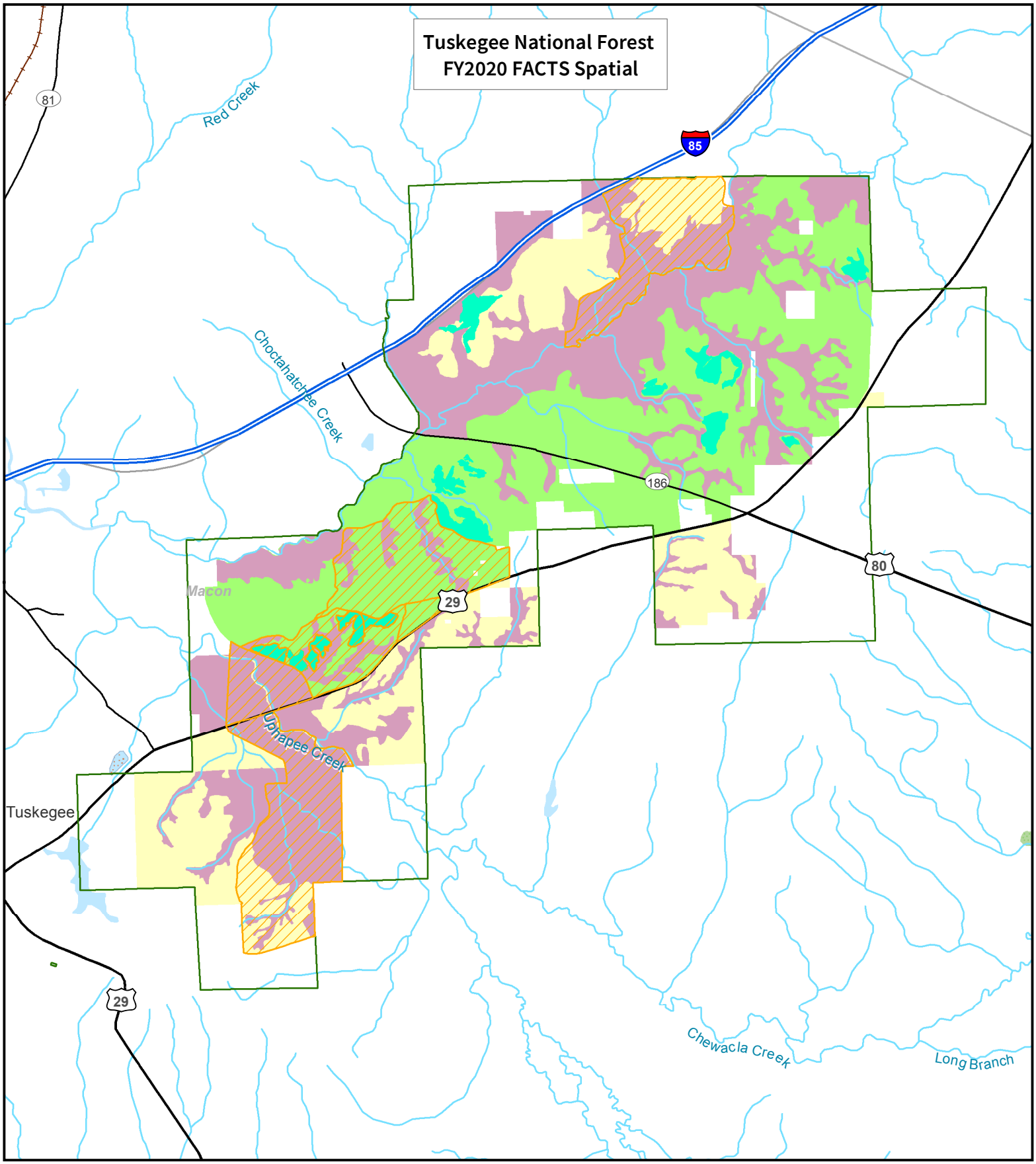
State Park

5/31/2022

0 2 4 Miles

USDA Forest Service
U.S. Department of Agriculture

Tuskegee National Forest
FY2020 FACTS Spatial



FY2020 FACTS Spatial
- Prescribed Burning
- Regeneration

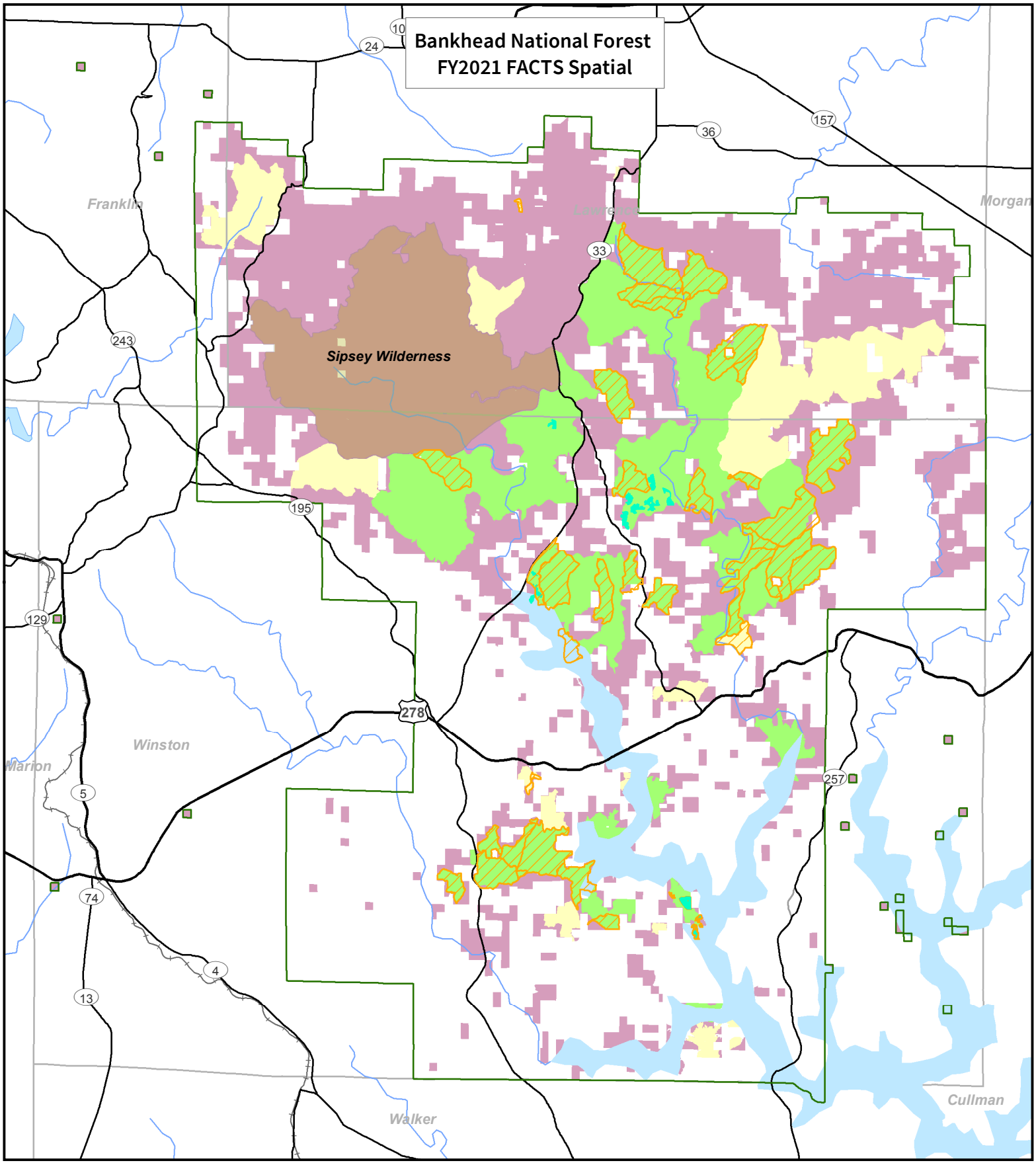
Core Areas
- Primary Core
- Secondary Core
- Tertiary Core

5/31/2022

0 0.5 1 Miles

USDA Forest Service
U.S. Department of Agriculture

Bankhead National Forest
FY2021 FACTS Spatial



FY2021 FACTS Spatial
- Prescribed Burning
- Regeneration

Core Areas
- Primary Core
- Secondary Core
- Tertiary Core

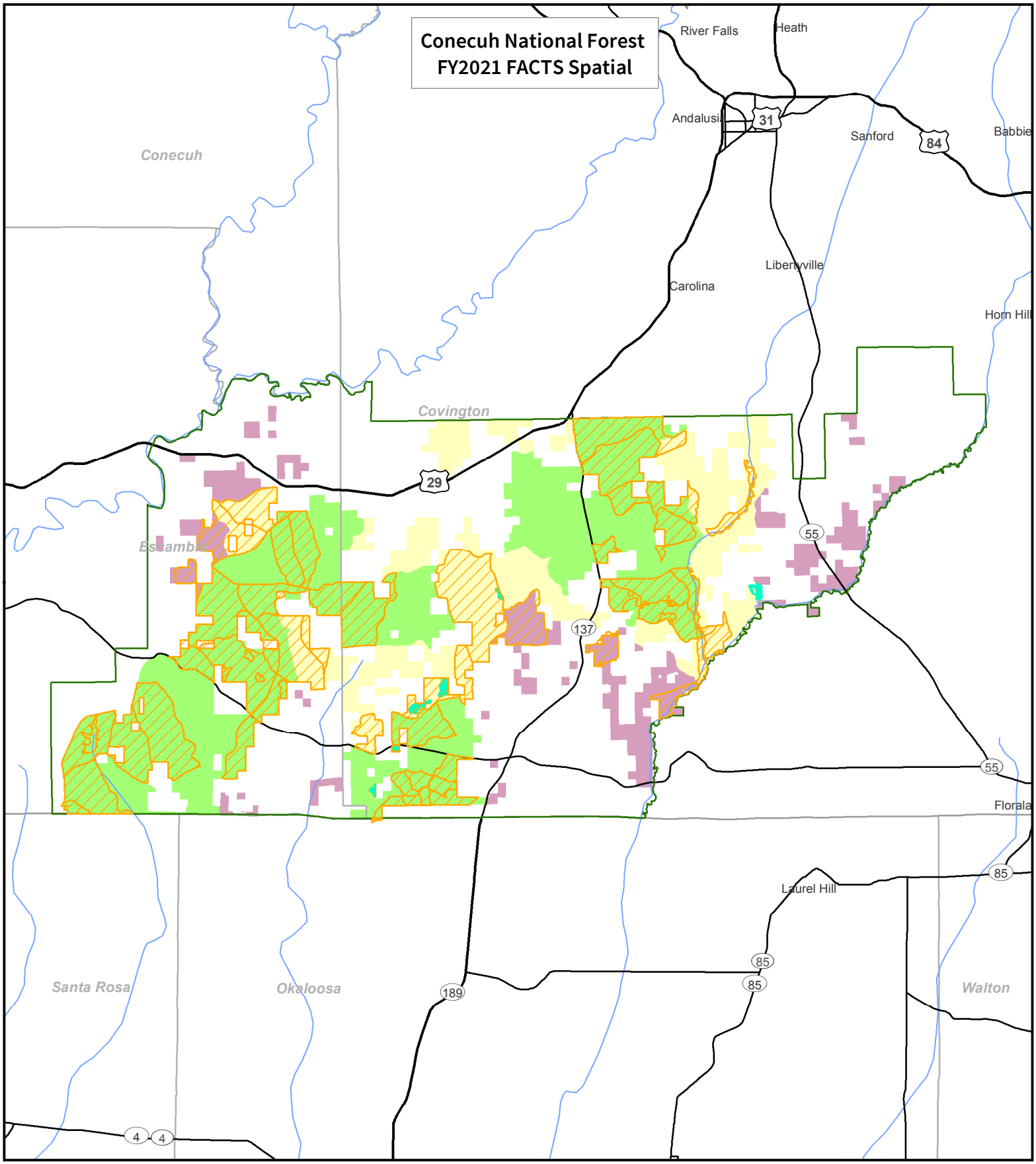
Wilderness

5/31/2022

0 2 4 Miles

USDA **Forest Service**
U.S. Department of Agriculture

Conecuh National Forest FY2021 FACTS Spatial



FY2021 FACTS Spatial
- Prescribed Burning
- Regeneration

Core Areas
- Primary Core
- Secondary Core
- Tertiary Core

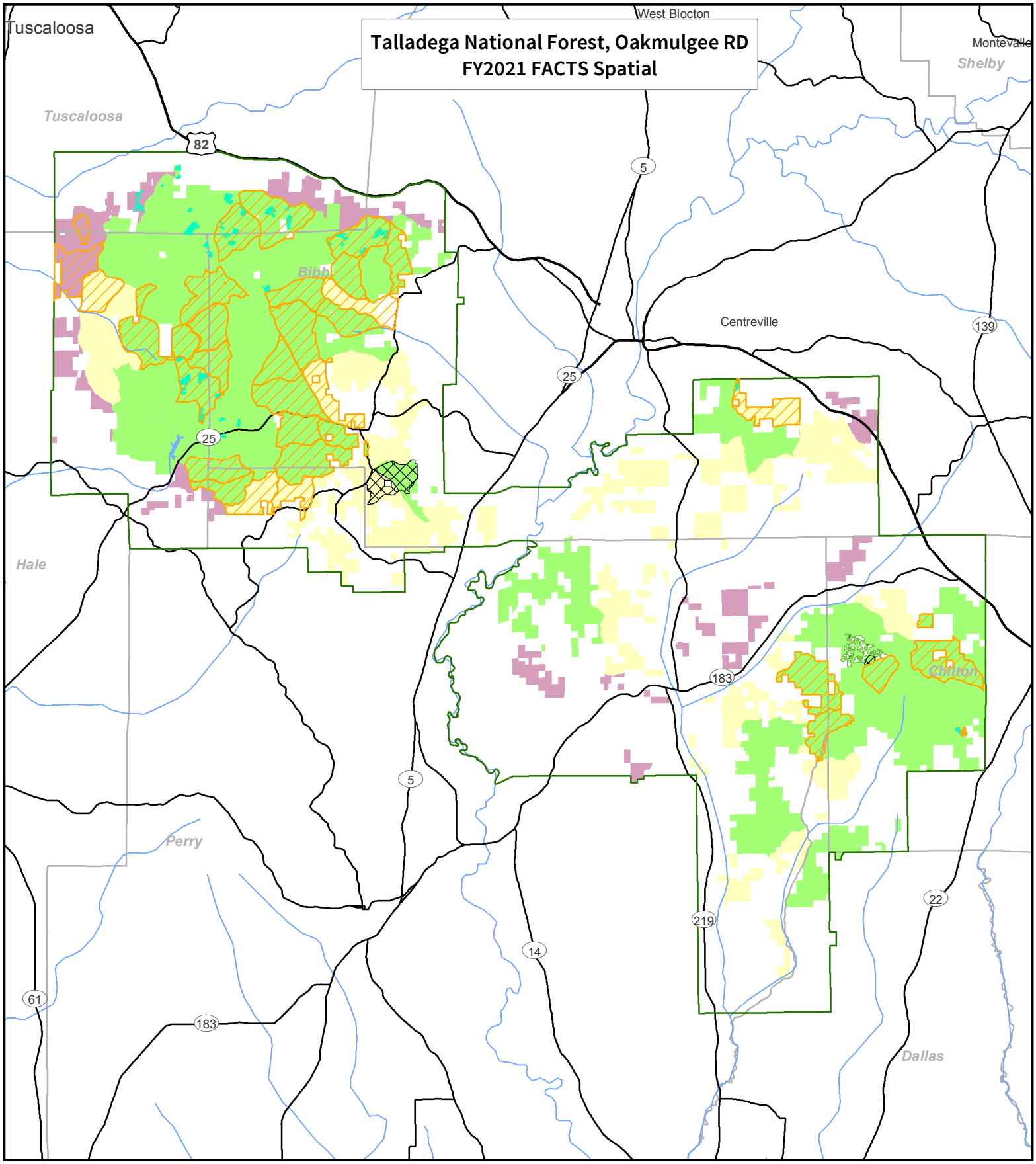
5/31/2022

0 2 4 Miles

USDA

Forest Service
U.S. Department of Agriculture

Talladega National Forest, Oakmulgee RD
FY2021 FACTS Spatial



FY2021 FACTS Spatial
- Restoration
- Prescribed Burning
- Regeneration
- Overstory Thinned

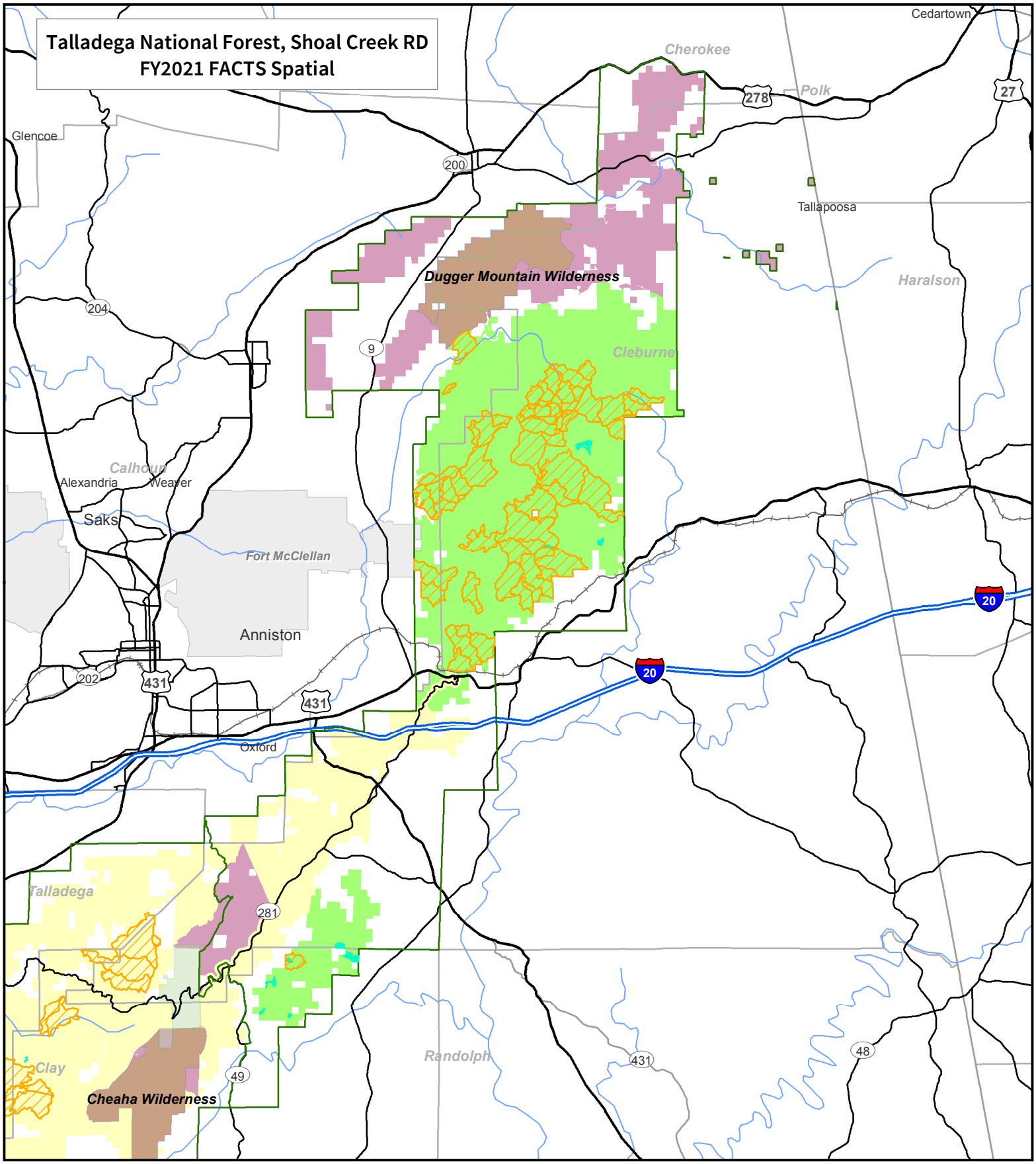
Core Areas
- Primary Core
- Secondary Core
- Tertiary Core

5/31/2022

0 2 4 Miles

USDA Forest Service
U.S. Department of Agriculture

Talladega National Forest, Shoal Creek RD
FY2021 FACTS Spatial



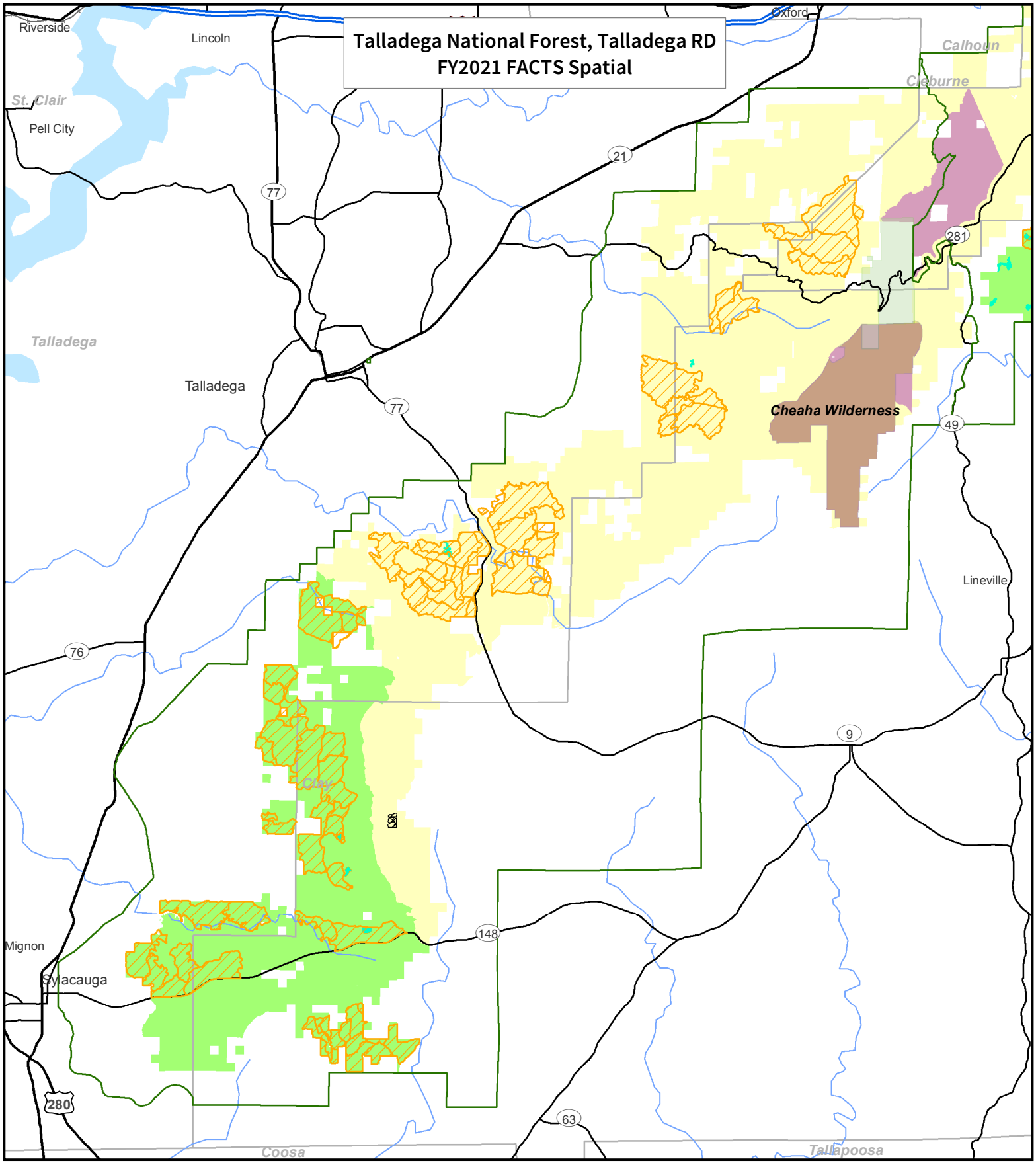
FY2021 FACTS Spatial	Core Areas	Wilderness	Other Lands
Prescribed Burning	Primary Core		
Regeneration	Secondary Core	State Park	
	Tertiary Core		

5/31/2022

0 2 4 Miles

USDA Forest Service
U.S. Department of Agriculture

Talladega National Forest, Talladega RD
FY2021 FACTS Spatial



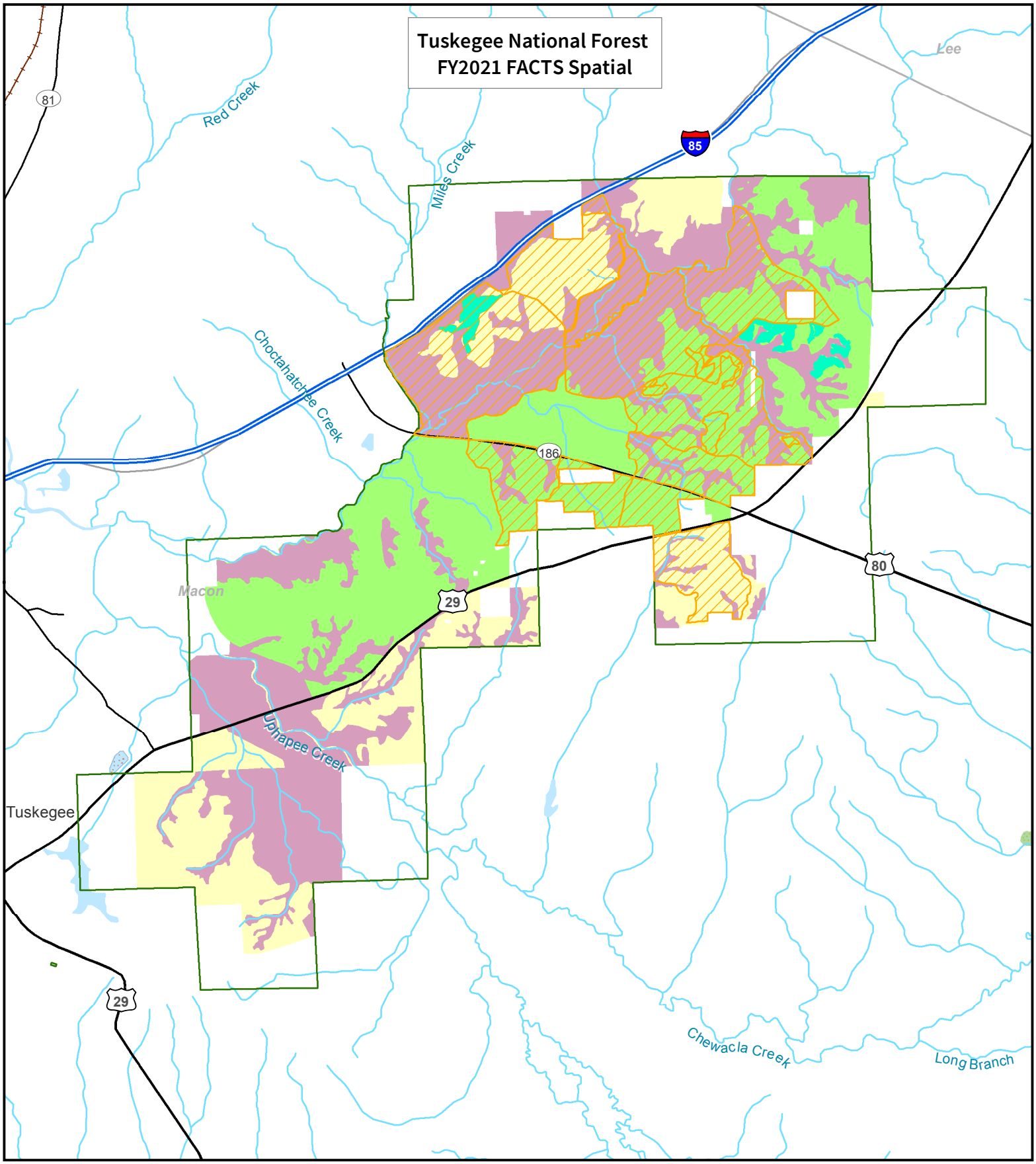
FY2021 FACTS Spatial	Core Areas	Wilderness
Restoration	Primary Core	
Prescribed Burning	Secondary Core	State Park
Regeneration	Tertiary Core	

5/31/2022

0 2 4 Miles

USDA **Forest Service**
U.S. Department of Agriculture

Tuskegee National Forest
FY2021 FACTS Spatial



FY2021 FACTS Spatial
- Prescribed Burning
- Regeneration

Core Areas
- Primary Core
- Secondary Core
- Tertiary Core

5/31/2022

0 0.5 1 Miles