Biennial Monitoring Evaluation Report

National Forests in Alabama

Fiscal Years 2018 & 2019

Contents

Forest Supervisor's Certification

I have evaluated the monitoring results and recommendations in this report. I am directing that the Action Plan developed to respond to these recommendations be implemented according to the time frames indicated, unless new information or changed resource conditions warrant otherwise. I have considered the funding requirements in the budget that are necessary to implement these actions.

With these actions, the *Revised Land and Resource Management Plan* is sufficient to guide future management unless ongoing monitoring and evaluation identify further needs for change.

Any amendments or revisions to the Forest Plan will be made using the appropriate NEPA Process.

Cherie E Hamilton

CHERIE HAMILTON
Forest Supervisor

09/21/2020
Date

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Chapter 1

Introduction

The National Forests in Alabama annually monitors and evaluates the programs and projects to determine whether these activities are meeting the management direction in the Forest Plan. The purpose of this report is to document the results of the Forest Plan monitoring evaluation program for fiscal years 2018 and 2019.

Monitoring evaluation is an ongoing process that is documented through reviews made by the individual resource specialists, Forest Leadership Team and District Rangers. The information from these reviews, individual inventory reports, reports and information from cooperators and research are compiled into one comprehensive report biennially in accordance with the 2012 Planning rule (36 CFR 219.12(d). The Forest Interdisciplinary and Leadership Teams complete the evaluation and final report.

The biennial monitoring evaluation report that follows is presented in three chapters and five Appendices.

Chapter 1 is primarily an introduction and executive summary of the report findings and recommendations. Chapter 2 details monitoring processes, actions, and findings of the monitoring completed. Chapter 3 highlights some of the outcomes of actual projects implementing the Forest Plan that led to the findings and recommendations in Chapter 2. It also contains the Action Plan.

Appendix A is the list of contributors to this report.

Appendix B is a summary of the field reviews and other administrative activities completed in connection with the monitoring and evaluation efforts.

Appendix C is the status of the previous action plan.

Appendix D is a list of the significant research findings, reports, or needs that have been identified for the National Forests in Alabama.

Appendix E displays the locations of Ecosystem Restoration and Maintenance activities on each district.

Executive Summary

This section includes a brief summary of the process used to develop this report and the important findings and results for this period.

The National Forests in Alabama (NFsAL) periodically monitors and evaluates programs and projects to determine whether these activities are meeting the management direction shown in the Revised Land and Resource Management Plan (Forest Plan). Monitoring evaluation is specifically designed to insure:

1) Forest Plan goals and objectives are being achieved,
2) Standards are being properly implemented,
3) Environmental effects are occurring as predicted,
4) Our actions are having the expected results,
5) New issues are being identified and addressed.

The evaluation of monitoring results allows the Forest Supervisor to initiate action to improve compliance with standards where needed and determine if any amendments to the Forest Plan are needed to improve resource management. This report summarizes the monitoring activities and evaluations for two years, fiscal years 2018 and 2019. It also provides a tool to improve internal communication and feedback and provides for accountability to the public.

Evaluation of the monitoring results is reported by resource activity area and responds to monitoring questions (MQ) established in the Revised Forest Plan and expanded by the *"Administrative Change for the 2012 Planning Rule Transition May 2016".*

I. Ecosystem Condition, Health and Sustainability

Key Ecological Conditions

Findings: Virtually all MIS are associated with the restored DFC habitats described by the Forest Plan are shown as stable or increasing over the past 2 years.

Recommendations: Continue restoration of early successional understory habitats on uplands and maintain diverse herbaceous plant communities. Use prescribed burning to maintain these habitats and when possible use a mosaic of burn blocks so that a variety of habitat types are maintained across the landscape for species like bobwhite quail.

Forest Health/Stressors

Findings: Southern Pine Beetle (SPB) activity decreased during FY2018 and FY2019.

Recommendations: Continue monitoring for SPB activity and treat where the need arises.

Watershed Conditions

Findings: Forest standards were implemented to protect soil and water resources. Upland restoration of longleaf pine communities continue to gradually move hydrologic functions to a more historic pattern. Riparian areas continue to be avoided from management activities despite the 10% management for early succession outlined in the Revised Land Management Plan.

Recommendations: New projects need to consider management of riparian areas as per forest plan direction (Objective 8.2).

II. Sustainable Multiple Forest and Range Benefits

Recreation/Infrastructure/Facilities

Findings: Tsinia wildlife viewing area, on Tuskegee National Forest has been decommissioned and some improvements removed, however the Forest Plan Management Prescription has not been changed.

Recommendations: Initiate a forest plan amendment to change the management prescription to that of the surrounding area.

Roadless/Wilderness/Wild and Scenic Rivers

Findings: None

Recommendations: None

Heritage Resources

Findings: None

Recommendations: None

Outputs – Timber, Lands, Minerals, Special Uses

Findings: 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.

Ecological needs for thinning (SPB suppression, RCW habitat, longleaf restoration, woodland/savanna restoration, etc.) have exceeded acres projected in the FEIS (p.3-447). Forest plan objective 1.4 reflects these needs. This is reflected in the acres of thinning as these are higher than projected.

Minerals leases for the Conecuh National Forest will be expiring at the end of 2020, and according to the Bureau of Land Management, several expressions of interest have been received

Recommendations: 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.

III. Organizational Effectiveness

Meeting Forest Plan Standards and Objectives

Findings: Reviews, spot checks, and reporting (FACTS) indicate that silvicultural practices and project decisions are in compliance with the forest plan

Recommendations: Continued to review project decisions and implementation for Forest Plan compliance.

Economics

Findings: Fluctuating budgets present challenges to accomplishing forest plan goals and objectives, but also provide opportunities for efficiencies in utilizing available funds.

Recommendations: Continue to utilize all available sources of funding to accomplish program goals.

Chapter 2

Monitoring Results and Findings

The Forest Plan, chapter, establishes and discusses monitoring questions (MQ) that are to be addressed over the course of Forest Plan implementation. Monitoring questions address whether the desired conditions, goals and objectives of the Forest Plan are being met and whether Forest Plan standards are effective.

I. Ecosystem Health, Condition, and Sustainability

A. Biodiversity

Biodiversity is addressed by monitoring questions 1, 2, 5, 7, 8, and 9 (see beginning on page 10). These questions relate to ecological communities, major forest communities, terrestrial habitats, aquatic habitats, management indicator species and focal species. These questions are addressed by monitoring of projects that directly and indirectly alter these communities, specifically projects that alter the overstory or understory vegetation such as timber sales and prescribed burning. Project decisions are signed by the district ranger of a given unit and Table 1 lists vegetation management projects signed during FY 2018 and 2019.

Table 1: Vegetation Management Project decisions signed during FY 2018 and FY 2019 by unit and decision date.

Project Name	Project Purpose	Decision Type	Unit	Decision Date	Fiscal Year
Bankhead 2017 Forest Health CE	Insect and Disease – Forest Health	DM	Bankhead	3/2018	2018
Southern Pine Beetle FY 18 Restoration	Insect and Disease - Restoration	DM	Bankhead	4/2018	2018
Byler Road Hazard Tree Mitigation Project	Fuels	DM	Bankhead	5/2109	2019
Blue Spring West	Restoration – Forest Health	DN	Conecuh	4/2019	2019
Conecuh Compartment 12 Thinning	Forest Health – Veg Management	DM	Conecuh	4/2019	2019
Conecuh Compartment 4 Thinning	Forest Health – Veg Management	DM	Conecuh	4/2019	2019
Conecuh Compartment 10 Thinning	Forest Health – Veg Management	DM	Conecuh	4/2019	2019

Table 1: Vegetation Management Project decisions signed during FY 2018 and FY 2019 by unit and decision date.

Project Name	Project Purpose	Decision Type	Unit	Decision Date	Fiscal Year
Conecuh Compartment 40 Thinning	Forest Health – Veg Management	DM	Conecuh	4/2019	2019
Conecuh Compartment 67 Thinning	Forest Health – Veg Management	DM	Conecuh	4/2019	2019
Oakmulgee Perry Mountain Restoration Project	Restoration – Veg Management	DN	Oakmulgee	6/2018	2018
Oakmulgee Prescribed Fire and RCW Maintenance	T&E - Fuels	DN	Oakmulgee	4/2018	2018
Oakmulgee SPB Forest Health Project	Insect and Disease – Forest Health	DM	Oakmulgee	3/2018	2018
2017 Corax/Crotalus/Ivory	Vege Management - Restoration	DN	Shoal Creek	5/2019	2019
2018 Shoal Creek HFRA	Insect and Disease – Forest Health	DM	Shoal Creek	4/2018	2018
2018 Shoal Creek HRFA SPB	Insect and Disease – Forest Health	DM	Shoal Creek	11/2018	2019
2017 Lake Chinnabee Wildfire Hazard Tree Removal	Veg Management - Safety	DM	Talladega	2/2018	2018
Artificial Regeneration after Lake Chinnabee Wild Fire	Veg Management - Reforestation	DM	Talladega	4/2018	2018
Talladega Division New Prescribed Burn Units EA	Fuel – Veg Mgmt - Wildlife	DN	Talladega/Shoal Creek	11/2017	2018
Tuskegee RX Burning FY 19- 23	Fuels – Veg Management	DM	Tuskegee	2/2019	2019

MQ-1. Are rare ecological communities being protected, maintained, and restored? (Goal 13, 14, 15)

MQ-2. Are landscape-level and stand-level composition, structure, and function of major forest communities within desirable ranges of variability?

Several components contribute to providing for the restoration and maintenance of native communities (Goal 1). Vegetative 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 2 presents a summary of acres of vegetation management treatments by activity to meet forest plan goals.

Table 2: Forest-wide Acres of Vegetation Management Treatments

Activity	Acres*	
	FY 2018	FY2019
Burning (includes site prep)	113,136	101,188
Hogs	1699	1819
Natural Regeneration	-	7
NNIPS	1103	1121
Pre-commercial thinning	-	-
Release	543	922
Site Preparation (excludes burning)	1235	975
Timber Harvest – Regeneration	2750	895
Timber Harvest - Thinning	3148	2956
Tree Planting	1549	2744

*Source: Timber harvest acres reported as sold in Timber Information Manager (TIM). All other treatment acres reported as accomplished in Forest Service Activity Tracking system (FACTS).

MQ-3. Are key successional stage habitats being provided?

Vegetation management, using various treatments, contributes to providing and maintaining habitats. Timber harvest, thinning and regeneration provide and maintain key successional stages (Table 2).

MQ-4. How well are key terrestrial habitat attributes being provided?

Table 2 above displays the acres of vegetation management treatments that provide key terrestrial habitat attributes and key habitat components (Goals 11, 15, 16, 17, 18, and 19).

MQ-5. What is the status and trend in aquatic habitat conditions in relationship to aquatic communities? (Goal 9, 10, 11, 35)

The Lewis Smith Lake FERC (Federal Energy Regulatory Commission) re-licensing agreement partner work on the Bankhead District continued in 2018 and 2019. The Alabama Power Company (APCO) collected information regarding distribution of the Black Warrior Waterdog using eDNA samples, trapping, and dipnetting in the lower reaches of Sipsey Fork and Brushy Creek along with radio telemetry of flattened musk turtles to determine overwintering and nesting habitat in the reservoir along shorelines of National Forests lands. See attached reports.

Three lake management plans were updated in 2018 and 2019. Electrofishing sampling was conducted to evaluate game fish populations. Habitat and aquatic vegetation conditions were also evaluated. The information was used to summarize current population and habitat conditions and to produce lake management recommendations to district managers. Game fisheries in Brushy Creek Lake (Bankhead Ranger District) continue to decline due to the poor habitat resulting from sediment accumulation behind the dam and shallow lake conditions. Coleman Lake (Shoal Creek Ranger District) fisheries are recovering from a lake drawdown and fish loss a few years prior and continue to improve. Bass and bream populations in Sweetwater Lake (Shoal Creek Ranger District) were found to be at levels sustainable at current angler pressure. The fisheries in this reservoir are under-utilized and increased harvest of bass would improve size-class structure of the bass populations.

A monitoring plan for the National Forests in Alabama using an Index of Biotic Integrity (IBI) was developed to assess and monitor the effects of Forest Plan implementation on aquatic habitat and fauna. The 30+2 IBI protocol developed by the Geological Survey (GSA) of Alabama was specifically calibrated for the ichthyoregions of Alabama and enables comparisons of biological conditions between similar stream reaches. This protocol is the standard used extensively across Alabama to measure stream health by state resource agencies including the GSA, Alabama Department of Environmental Management (ADEM), and Wildlife and Freshwater Fisheries Department (WFFD). The adoption of this standardized biomonitoring tool allows the National Forests in Alabama to assess the overall biological condition of a stream using fish community metrics. The IBI was calibrated to each of the 5 separate ichthyoregions delineated within Alabama. A set of fish community metrics, selected for each ichthyoregion, were scored and compared to values expected from an undisturbed fish community in similar-sized streams of the same ichthyoregion. The sum of scores of each metric represents the final IBI score for a site. Fish communities are assigned to one of five classes based on the final IBI score: **Excellent** - Comparable to the best situations without human disturbance, all regionally expected species for the habitat and stream size, including the most intolerant forms, are present with a full array of age (size) classes; balanced trophic structure; **Good** - Species richness somewhat below expectation, especially due to the loss of the most intolerant forms; some species are present with less than optimal abundances or size distributions; trophic structure shows some signs of stress; **Fair** - Signs of additional deterioration include loss of intolerant forms, fewer species, and highly skewed trophic structure; **Poor** - Dominated by omnivores, tolerant

forms, and habitat generalists; few top carnivores; growth rates and condition factors commonly depressed; hybrids and diseased fish often present; **Very Poor** - Few fish present, mostly introduced or tolerant forms; hybrids common; and **No Fish** - Repeated sampling yields no fish. Comparing reach-wide fish community conditions over time will provide indicators to detect changes in the streams health.

In FY18 and FY19 ten sites on the National Forests in Alabama were sampled for a total of eleven times (one site twice) using the IBI 30+2 method by the Forest Service and the Alabama Department of Environmental Management (ADEM) and scores were calculated for each site. Nine of these sites were from 10 selected as permanent sample sites for ongoing, systematic sampling by the Forest Service and partners. These sites were selected based on the following factors: majority FS ownership in the watershed upstream of the sampling site, a representation of variety of the land management prescriptions described in the 2014 NFAL Land Management Plan, and a representation of the different ichthyoregions in Alabama (Tables 3 and 4).

Table 3. Site name, Ranger District, Watershed Size (acres), percent Forest Service ownership in watershed, and GSA ichthyoregion for permanent IBI sample sites.

Site Name	Ranger District	Watershed Size (acres)	% FS ownership of watershed	GSA Ichthyoregion
East Fork Beech Creek	Bankhead	3,431	85	Plateau
Indian Creek	Bankhead	1,926	86	Plateau
Camp Creek	Conecuh	5,289	82	Southern Plains
Miller Creek	Conecuh	4,939	77	Southern Plains
Elliotts Creek	Oakmulgee	4,879	90	Hills and Coastal Terraces
Little Oakmulgee Creek	Oakmulgee	2,318	100	Hills and Coastal Terraces
Little Shoal Creek	Shoal Creek	4,008	100	Ridge and Valley/Piedmont
Trib to SF Terrapin Creek	Shoal Creek	1,062	100	Ridge and Valley/Piedmont
Garing Creek	Talladega	3,103	70	Ridge and Valley/Piedmont
*Brushy Creek at Pine Torch Road	Bankhead	5,790	96	Plateau

* - not a permanent site, ADEM sample site

Table 4. Site and percent Forest Service ownership by Management Prescription Code (from the National Forests in Alabama Revised Land and Resource Management Plan - 2004).

	Management Prescription Code*											
Site	1.A	4.D	4.E.1	7.B	7.C	7.E.2	8.B.1	8.D.1	9.D	9.D.1	10.D	12.A
EF Beech Creek	-	-	-	-	-	100	-	-	-	-	-	-
Indian Creek	-	7	21	-	69	3	-	-	-	-	-	-
Camp Creek	-	-	-	-	-	28	23	-	13	-	37	-
Miller Creek	-	-	-	-	-	-	-	100	-	-	-	-
Elliotts Creek	-	-	-	-	-	98	-	2	-	-	-	-
Little Oakmulgee Creek	-	-	-	-	-	-	-	-	100	-	-	-
Trib to SF Terrapin Creek	81	-	-	-	-	-	-	-	-	-	-	19
Little Shoal Creek	-	-	-	-	-	-	-	69	-	31	-	-
Garing Creek	-	-	-	4	-	-	-	-	-	96	-	-
Brushy Creek	-	-	18	-	-	82	-	-	-	-	-	-

* - Narrative description of Management Prescription Codes:
1.A - Designated Wilderness/Wilderness Study Area
4.D - Botanical/Zoological Areas
4.E.1 - Cultural/Heritage Areas
7.B - Sensitive Viewsheds
7.C - OHV Use Areas
7.E.2 - Dispersed Recreation with Vegetation Management
8.B.1 - Woodlands, Savannas, Grasslands Habitats
8.D.1 - Red-cockaded Woodpecker HMA
9.D - Restoration of Coastal Plain Longleaf Pine Forests
9.D.1 - Southern Ridge and Valley Native Ecosystem Restoration and Maintenance
10.D - Grazing and Forage Emphasis
12.A - Remote Backcountry Recreation with few Open Roads

Watersheds upstream of each sample start point were delineated in GIS using digital elevation models (DEMs). This effectively bounds the area potentially affected by any management activity upstream of the sample start point. All known forest management activities conducted by the National Forests in Alabama with spatially referenced information were clipped to the delineated watersheds upstream of the sample site start points. This information was derived from the Forest Service Activity Tracking System (FACTS) database. The known available spatial information is limited to FACTS and therefore limited in scope and time frame. See table 5 below for the name, description, and available date range of the management activities from FACTS.

Table 5. List of FACTS spatially referenced forest management activities, descriptions, and date range of information available for each of the sample site delineated watersheds.

Activity Name	Activity Description	Available Date Range
Hazardous Fuels Treatment	Treatment types include mechanical, chemical, and burning for wildlife habitat, NNIS, site prep, etc.	2002 to 04/04/2019
Timber Sales	Treatment types are listed as: biomass removal, commercial thinning, overstory removal, shelterwood cut, and stand clear cutting	2008 to 11/09/2017
Historic Timber Sales	Treatment types are listed as: clear cut, group selection, regeneration, salvage, seed tree removal, and thinning	1996 to 2000
KV activities	Activities include site preparation, NNIS treatment, tree planting, and stocking surveys.	1984 to 2016
Timber Stand Improvement	Treatments included thinning with mechanical, chemical, and burning methods.	1983 to 2019
Stewardship Projects	Treatments included site prep, NNIS, release, and planting.	2014 - 2019

All management activities included in FACTS within the delineated watersheds were combined and total number of activities and affected area were calculated and the date range of activities were determined and are listed in the table 4. Affected areas can overlap and the total acres affected could exceed the watershed size.

Table 6. Site name, total number of treatments, total acres affected, and date range of all forest management activities combined for each of the delineated watersheds.

Site Name	Total # of Management Activities	Total Acres Affected	Date Range
Indian Creek	7	34	2009 - 2019
East Fork Beech Creek	77	13,958	1994 - 2019
Camp Creek	137	25,593	1990 - 2019
Miller Creek	164	20,931	1983 - 2019
Elliotts Creek	151	8,956	1993 - 2019
Garing Creek	130	4,670	1984 - 2019
Eumawhee Creek	140	8,683	1984 - 2019
Tributary to SF Terrapin Creek	0	0	-
Little Shoal Creek	198	23,753	1996 - 2019
Little Oakmulgee Creek	12	2,230	1996 – 2019

Site Name	Total # of Management Activities	Total Acres Affected	Date Range
Brushy Creek at Pine Torch Rd	75	25,221	1987 - 2019

The majority of sites sampled in 2018 and 2019 scored in the '**Good**' IBI range, with one site in the '**Fair**' range and one in the '**Excellent**' range during one sampling period (Table 5). Comparing the IBI scores with the number of management activities and total area affected in the watershed areas upstream of the sample sites and across management prescriptions, it can be concluded that implementation of the Forest Plan has had a nominal impacts on stream health at these sampled locations. The tributary to South Fork Terrapin Creek site may further illustrate this conclusion as no management activities occurred upstream since before 2004 because of the Wilderness designation in the watershed, and it scored in the '**Good**' category along with most of the other sites with management activities upstream.

Table 7. Location and number of samples (), X/Y coordinates (UTM NAD 1983, zone 16N), and numerical and narrative IBI score classification for ten sites and eleven samples in FY18 and FY19 using the IBI 30+2 protocol.

Location (# of samples)	UTM Coordinates		IBI Score(s)
	X	Y	
East Fork Beech Creek (1)	471904.968	3796264.00	46 - Good
Indian Creek (1)	482382.000	3802588.00	42 - Good
Camp Creek (1)	544426.915	3447877.00	48 - Good
Miller Creek (1)	525816.862	3435990.24	46 - Good
Elliotts Creek (1)	454672.190	3646403.29	44 - Good
Little Oakmulgee Creek (1)	502732.692	3620979.45	46 - Good
Little Shoal Creek (1)	628046.978	3731135.44	50 - Good
Trib to SF Terrapin Creek (1)	634306.935	3749400.52	44 - Good
Garing Creek (1)	595331.290	3692566.40	36 - Fair
Brushy Creek at Pine Torch Road (2)	473580.915	3798860.85	42 - Good, 50 - Excellent

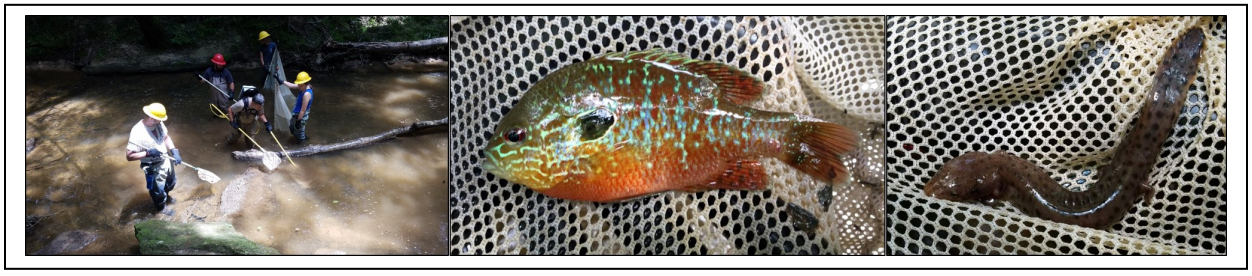


Figure 1. Photos of IBI sampling activity from FY18 and FY19.

MQ-7. What are the status and trends of federally listed species and species with viability concerns on the forest?

Monitoring question 7 is addressed by monitoring impacts of actions on federally listed species, regional forester's sensitive species, management indicator species and focal species.

Aquatic species - (see above)

Mussels

In 2018 and 2019, 22 km (13.7 mi) of stream at 24 sites were inventoried for habitat conditions and mussel presence, relative abundance, and distribution. During these surveys 1,119 live mussels representing 25 species including 7 species of federally listed mussels (n=74) and 6 R8 Foresters Sensitive species mussels (n=106). Surveys were conducted according to methods described in the National Forests in Alabama mussel monitoring plan. The information collected during these surveys will act as a baseline for future mussel monitoring activities to evaluate the effects of Forest Plan implementation on threatened and endangered species (TES) mussel habitat and populations across the Forest.

Figure 2. Photos of mussel monitoring activities for FY18 and FY19.

Rush Darter Sampling

In 2019, 4.7 km (2.9 miles) of stream and associated tributaries and riparian wetlands at 5 sites were surveyed to evaluated physical habitat and occupation and distribution of the federally endangered Rush Darter (*Etheostoma phytophilum*) on the Bankhead Ranger District. Rush Darter were found at 2 of the five sites (Mill Creek and Tig Branch) representing the first records of this fish on the Bankhead RD. The Mill Creek occurrence was not unexpected as it has been collected just downstream of the Forest boundary. The two Rush Darters captured in the Tig Branch represent the first records of this fish in the Tig Branch drainage. The Rush Darter were found to be utilizing main stem perennial stream channels, intermittent tributaries, wetlands, and ephemeral ponds in the riparian area. The main stem channels were incised with active head cuts. This down cutting will disconnect the stream channel from flood plain and erect barriers to fish movement from streams to adjacent wetlands and tributaries. The source of the head cut is unknown but originates

downstream of the National Forest. This ongoing degradation of habitat will negatively impact the long-term viability of Rush Darter in the Mill Creek system. No active down cutting or degradation of the stream channel was observed in the surveyed reaches of Tig Branch.

Figure 3. Photos of Rush Darter sampling on the Bankhead Ranger District, 2019.

White Nose Syndrome - Indiana Bat - Northern Long-eared Bat

The Bankhead National Forest continues to biennial surveys for federally listed bats in two caves, Backwards Confusion cave and Armstrong cave. The results of those surveys as well as acoustic and mist netting activities are reported to US FWS permitting biologist in accordance with permitting guidelines. The result of these activities for FY 2018 and FY 2019 are reported in Chapter 3 of this report, and the report to FWS is in the project file for this report.

Biological evaluations – Biological evaluations and biological assessments are completed for all projects to assess the potential impacts to federally listed species, critical habitat and species on the regional forester's sensitive species list.

RCW - The Revised Forest Plan contains both short-term and long-term 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.

Table 8: FLRMP Table 2.7 RCW Population Objectives (pages2-31, FLRMP) and RCW Report Summaries for 2018 and 2019							
Actual Population Size	RCW HMA	2002 Active Clusters	Short-term *(Plan Horizon)* Population Objective	Long-term Population Objective *(Recovery)* Objective	2004 Active Clusters	2018 Active Clusters	2019 Active Clusters
	Conecuh	19	28	308	23	70	86
	Oakmulgee	120*	185	395	100	123	131
	Shoal Creek	8	18	125	10	29	40
	Talladega	0	10	110	0	12	13
	Totals	**147**	**241**	**938**	**133**	**234**	**271**
Source: RCW Annual Report – Completed/Submitted to UFSWS by District Biologists							

*2003 Complete survey of Oakmulgee RCW clusters revealed a 20% decline since 1993(date of previous 100 % survey). Actual 2003 number of active clusters was found to be 98.

Eastern Indigo Snake Update: On July 14, 2017, 26 additional snakes were released at Nellie Pond area. Update: The annual report for the State Wildlife Grant project, Reintroduction of the Eastern Indigo Snake onto Conecuh National Forest, covers the period of October 1, 2018 – September 30, 2019. In summary, 15 snakes were released at Conecuh NF (7 males, 8 females) in 2019. Recapture results from monitoring included 2 EIS from the 2017 release, and 8 EIS from the 2018 release (Monitoring details can be found on pages 3-5).

Figure 4. An unmarked juvenile was found in 2020 evidence of reproduction in the wild.

Changes to listed species

Newly listed species (2016-2017); White-fringeless orchid (Platanthera integrilabia) was listed by the FWS as Federally Threatened (Rule published in FR on October 13, 2016. Three populations are known from the Shoal Creek District in the Ivory Mountain Area, and all of these known populations were surveyed by the Forest Biologist in October of 2018. Sixteen flowering individuals were recorded total for the three sites and no significant changes had occurred in total number of individuals from previous surveys (conducted in 2017). No surveys occurred in 2019.

Figure 5. White fringeless orchid.

MQ-8. What are the trends for demand species and their use? (Goal 9, 10, 11,12,13,16)

Management Indicator Species (MIS)

Twelve species were selected as management indicator species (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/hunter-survey-results.

The remaining MIS are 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.

Findings: Virtually all MIS are associated with the restored DFC habitats described by the Forest Plan are shown as stable or increasing over the past 2 years.

Recommendations: Continue restoration of early successional understory habitats on uplands and maintain diverse herbaceous plant communities. Use prescribed burning to maintain these habitats and when possible use a mosaic of burn blocks so that a variety of habitat types are maintained across the landscape for species like bobwhite quail.

B. Forest Health /Stressors

MQ-6. What are status and trends of forest health threats on the forest? (Goal 1, 2, 3, 7)

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?

Sound timber management practices help establish and maintain healthy and productive forests. Some stressors affecting the forest plan area included insects and disease, drought, non-native invasive species, off-site species and overstocking.

Forest management activities are proposed to improve forest health and provide resiliency by increasing vigor, replacing off-site species with species appropriate to the site, or replacing non-native invasive species with native species. Additionally, forest health proposals are designed to eliminate, suppress or reduce infestations of forest insect and disease pests.

Southern Pine Beetle - Through use of pre-commercial and commercial thinning's in overstocked stands, mortality due to cyclic Southern Pine Beetle attacks will be reduced and the spread of root diseases favoring and flourishing in off-site tree species will be slowed.

In 2018 and 2019 SPB activity on the Oakmulgee and Bankhead ranger districts decreased. This decreased activity was monitored and documented through monitoring previously known spots and other spots that were identified by aerial detection.

Hemlock Woolly Adelgid (HWA)

No symptoms of hemlock woolly adelgid infestation have been observed in the Eastern hemlock populations on the Bankhead.

Feral Hogs/Beaver

Feral Hogs are a threat to multiple resource areas on the National Forests in Alabama. In 2018 the National Forests in Alabama entered into a Forest-wide Interagency Agreement (IA) with USDA APHIS (Animal and Plant Health Inspection Service) wildlife services to trap and kill feral hogs and control other nuisance animals. This agreement continues and the district works in cooperation with AL DCNR to reduce feral hogs and their impacts on the forest.

The following update provides a summary of feral hog work conducted by USDA Wildlife Services at Bankhead, Tuskegee, and Oakmulgee National Forests during October 1, 2018-September 30, 2019.

Table 9: Feral Hogs Removals by District

	FY18	FY19
Bankhead	30	45
Oakmulgee	135	96
Tuskegee	2	-

Additionally, in FY 19 three beavers were removed by Wildlife Services on Oakmulgee, and four beaver dams were removed on Tuskegee to combat flooding issues along Forest Service roadways.

In addition to and alongside Wildlife Services, the Bankhead and Oakmulgee districts also conduct monitoring, trapping, and control efforts extensively via force account as well as through their local ADCNR Wildlife Management Area partners. In 2018 and 19 collectively, approximately 100 and 400 feral pigs total were removed from the Bankhead and Oakmulgee, respectively. As areas are trapped heavily the forest has seen a clear trend of

wariness and decreases in trapping efficacy, due to pigs becoming trap shy and as density decreases. Other challenges include access to loafing areas and refugia, especially in the bays and swamps on the Oakmulgee and remote canyons and forested areas of the Sipsey Wilderness Area on Bankhead, where there are no access roads. A Minimum Requirements Decision Guide is in the initial phases of being developed for trapping inside the Sipsey Wilderness Area to combat the feral swine infestation there.

Figure 6. Feral hog damage, hog wallow.

Figure 7. Hog damage.

NNIPS (Non-native invasive plant species) –All district continued to participate in NNIPS suppression efforts. Two new cogongrass infestations were found and treated on the Tallageda Ranger District. Oakmulgee and Conecuh still have the vast majority of cogongrass infestations on the NFs in Alabama.

For FY 2018, 1103 total acres of NNIPS were treated and in FY 2019 1121 total acres were treated. NNIPS threats to our Forest's resources are expected to increase as new species and introductions find their way to Forest lands. Mitigation for prevention and control of NNIPS should continue to be a part of every project planning process. The forest should continue to utilize stewardship authority to treat for NNIPS.

Air Quality – Prevention of Significant Deterioration (PSD) applications are processed annually and reviewed by the Region 8 Zone Air Specialist. Results are shared with the Forest Supervisor. Current air monitoring trends indicate atmospheric nitrates and sulphur as potential forest health threats. Sampling soil and water within the Sipsey Wilderness has been completed. Samples are being evaluated for nitrogen and sulphur. The Forest is awaiting results.

Climate – MQ 20, MQ 21, and MQ22 are addressed and evaluated through Region 8's Broader-Scale Monitoring Strategy at: www.fs.usda.gov/main/r8/landmanagement/planning . *The Five-Year Report for the Regional Broad-Scale Monitoring Strategy for the Forest Service Southern Region,* and the *Broad-Scale Climate Change Monitoring Evaluation Report for the Southern Region* evaluates these monitoring questions.

Findings: SPB activity decreased during FY2018 and FY2019.

Recommendations: Continue monitoring for activity and treat where the need arises.

C. Watershed Condition

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? (Goal 4, 5, 6, 8)

MQ-16. What are the conditions and trends of riparian area, wetland and floodplain functions and values? (Goal 6, 8, 10)

Water Assessments – Three watershed assessments were completed in support to NEPA decisions for vegetation management activities. Upland restoration of longleaf pine communities continues to gradually move hydrologic functions to a more historic pattern. In 2019, awarded the Citizen Science Competitive Funding Program (CitSci Fund) for "Developing a Citizen Volunteer Water Quality Monitoring Program in Alabama's National Forests" project.

Riparian areas continue to be avoided from management activities. There continues to be a need for early succession management.

Soil Inventory – The Terrestrial Ecological Unit Inventory (TEUI) project has started on the Oakmulgee Ranger District in 2019. There was a total of 118 TEUI sample points, 57 observations, 60 transect and 1 site, collected from May 28th – August 5th, 2019. The sample points were in 13 TEUI map units.

The Griffin MLRA Soil Survey Office (3-GRI) of the Natural Resources Conservation Service (NRCS) has started a spatial update using LiDAR data for Cleburne County – Shoal Creek Ranger District.

Findings: Forest standards were implemented to protect soil and water resources. Upland restoration of longleaf pine communities continues to gradually move hydrologic functions to a more historic pattern. Riparian areas continue to be avoided from management activities despite the 10% management for early succession outlined in the Revised Land Management Plan.

Recommendations: New projects need to consider management of riparian areas as per forest plan direction (Objective 8.2).

II. Sustainable Multiple Forest and Range Benefits

A. Recreation/Facilities/Infrastructure

MQ-9. Are high quality, nature-based recreation experiences being provided and what are the trends? (Goal 22, 23, 24)

Table 10 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 10: Recreation/Infrastructure/Facilities Projects by Unit and Decision Date

Project	Project Purpose	Decision Type	Unit	Decision Date
NFsAL Flood Damage Repair Project	Infrastructure - Watershed	DM	All	7/2018
Thloko and Okhussee Fish Ponds Temporary Closure	Recreation	DM	Tuskegee	8/2018
Open Pond Day Use Bath House Decommission	Recreation - Decommission	EA	Conecuh	11/2018
2018 Colman Lake New Water Well	Recreation - Developed	DM	Shoal Creek	7/2018
2018 Pinhoti Trail Spur	Recreation - Trails	DM	Shoal Creek	8/2018
2019 Kentuck Off-highway Vehicle Trail Re-route	Recreation - Trails	DM	Talladega	5/2019
Dog Retrieval Access	Recreation	DM	Talladega	11/ 2018

MQ-10. What are the status and trends of recreation use impacts on the environment? (Goal 22)

Motorized vehicle access is updated annually in August each year by publishing the Motorized Vehicle Use Map. The most current map may be found online at http://www.fs.usda.gov/detail/alabama/home/?cid=stelprdb5155057.

MQ-13. Are the scenery and recreation settings changing and why? (Goal 27)

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.

On the Tuskegee National forest, the Tsinia wildlife viewing area has been decommissioned and some improvements have been removed. The Forest Plan Management Prescription should be changed to reflect the current management in-line with the surrounding area.

Infrastructure – The travel analysis process (TAP) has been completed for all districts.

> **Findings:** 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.
>
> **Recommendations:** Initiate a forest plan amendment to change the management prescription to that of the surrounding area.

B. Roadless Areas/Wilderness/Wild & Scenic Rivers

MQ-11. What is the status and trend of wilderness character? (Goal 7)

The Class I Sipsey Wilderness air monitoring station has been maintained for FY 2018 and FY2019.

MQ-12. What are the status and trend of Wild and Scenic River conditions?

The status and trend of Wild and Scenic River conditions remains unchanged.

> **Findings: None**
>
> **Recommendations:** None

C. Heritage/Cultural Resources

MQ-14. Are heritage sites being protected? (Goal 30, 31)

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. In the event that an undertaking cannot be adjusted, and the historic property will suffer an adverse effect, a memorandum of understanding (MOA) is written by the NFsAL with invited consulting parties to determine the best way to mitigate the affect upon the site. Case in point is the Talladega District Horn Mt. Fire Tower. An MOA is in effect between the NFsAL and three consulting parties to minimize the intrusion of a new communications tower on the 1930s CCC (Civilian Conservation Corps) constructed property.

The NFsAL Heritage personnel must be 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.

The NFsAL completes 106 field work and related reports via contracts, agreements and in-house in support of resource management activities. Table 11a below summarizes acres of field survey during FY 2018 and 2019.

Table 11A: Acres Surveyed for Heritage Resources by Mechanism				
Acres Surveyed in FY 2018	In-house	Participating Agreement	IDIQ	Total
	1,331	2,963	1,262	5,556
Acres Surveyed in FY 2018 By District				
Bankhead:			1,262	1,262
Conecuh:	1,331			1,331
Oakmulgee:		2,863		2,863
Shoal Creek:				0
Talladega:		100		100
Tuskegee:				0
Total	1,331	2,963	1,262	5,556

Table 11B: Acres Surveyed for Heritage Resources by Mechanism				
Acres Surveyed in FY 2019	In-house	Participating Agreement	BPA	Total
	300	10,733	4,863	15,896
Acres Surveyed in FY 2019 By District				
Bankhead:	200		1,138	1,338
Conecuh:	100	800		900
Oakmulgee:		3,690		3,690
Shoal Creek:		3,000	2,800	5,800
Talladega:		3,243	210	3,453
Tuskegee:			715	715
Total	300	10,733	4,863	15,896

Findings: None

Recommendations: None

D. Outputs – Timber/Minerals/Others

MQ-17. How do actual outputs and services compare with projected?

Timber - Forest management activities are implemented to attain desired future conditions. They also result in outputs such as timber volume. The forest plan and FEIS (p. 3-447, 3-476) projected possible outputs over the life of the plan. The forest plan describes expected timber outputs in terms of Allowable Sale Quantity (ASQ), the maximum quantity of timber that may be sold from the land suitable for timber production for a specified period (10 years). The ASQ for NFsAL is 155.8 million cubic feet for the second period, 2015 - 2025. These numbers are not goals but rather estimate the output of management activities on the land.

- **Thinning** – The forest plan projected a total for 18,425 acres of possible thinning for the second ten years. The total acres thinned to date (5 years into the 2nd period) is 19,174 acres.
- **Regeneration** – The forest plan projected a total of 31,775 acres of possible final harvest (restoration/regeneration) for the second period (ten years). The total acres harvested for regeneration to date (5 years into the 2nd period) is 6,431 acres.

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.

Ecological needs for thinning (SPB suppression, RCW habitat, longleaf restoration, woodland/savanna restoration, etc.) have exceeded acres projected in the FEIS (p.3-447). Forest plan objective 1.4 reflects these needs. This is reflected in the acres of thinning as these are higher than projected.

The following table 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 12: Forest Plan Projected Timber Volumes and Harvested Acres for the Second Ten Years Compared to Actual Timber Volumes Sold and Acres.

	10 Years Projected – 2nd Period	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Total	% of projected
Timber Volume Sold (Cubic Feet)	155,800,000 Cubic Feet	8,129,182 Cubic Feet	8,797,047 Cubic Feet	6,333,580 Cubic Feet	7,559,732 Cubic Feet	7,839,600 Cubic Feet	32,679,273 Cubic Feet	21%
Acres Thinned	18,425	4,083	5,713	3,274	3,148	2,956	19,174	104%
Acres Final Harvest	31,775	1,018	1,133	635	2,750	895	6,431	20%

Fire (Prescribed Burning) – The forest plan projected a total 94,440 acres of possible prescribed burning per year for the first 10 planning period (years 1-10). The total acres prescribed burned in FY 2019 are 101,188. The total acres prescribed burned in FY 2018 are 113,136.

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. During FY 2018 and FY 2019, no decisions were signed authorizing an Application for Permit to Drill (APD). Only one 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.

- Conecuh Oil and Gas – Minerals leases for the Conecuh National Forest will be expiring at the end of 2020, and according to the Bureau of Land Management, several expressions of interest have been received. In light of this information, the forest service is proposing a Forest Plan Amendment to reconsider the lands available for leasing as well as the stipulations that would apply.

Special Uses – Goal 46 of the Forest Plan directs evaluation of special-use application to determine if they are in the public interest, cannot be accommodated on private land, and comply with the Forest Plan, laws, regulations and statutes. During FY 2018/2019, 15

decisions for recreation special uses were signed. Table 13 below lists the decisions by unit and decision date.

Table 13: Recreation Special Use Permit Decisions by Unit and Decision Date

Project	Unit	Decision Date
2017 NATRC Competetive Trail Ride	Shoal Creek	10/2017
2017 Pinhoti 100	Shoal Creek	11/2017
2018 Cheaha Challenge	Shoal Creek	5/2018
2018 Pinhoti 100 Ultra	Shoal Creek	11/2018
2018 Yellowhammer Endurance Ride	Shoal Creek	3/2018
2019 Cheaha Challange	Shoal Creek	5/2019
2019 Mt Cheaha 50K	Shoal Creek	2/2019
2019 Rockin Choccolocco 50k and Half Marathon	Shoal Creek	5/2019
2019 Yellowhammer Pioneer Endurance Ride	Shoal Creek	5/2019
2018 Alabama Whoopin	Talladega	8/2018
2018 Mt Cheaha 50k	Talladega	2/2018
2018 Rebecca Mtn 50 Mile Ultramarathon	Talladega	9/2018
2019 AAW & Hella Hundo Cyclecross	Talladega	9/2019
2019 Rebecca Mountain 20 mile Ultra marathon	Talladega	9/2019
2019 Skyway Epic Bike Race	Talladega	4/2019

Additionally, 8 decisions for access permits were signed during FY 2018 and 2019. Table 14 summarizes these decisions by unit and date.

Table 14: Decisions for Access by Unit and date

Unit	Number of Decisions	FY
Conecuh	5	2019
Oakmulgee	1	2018
Talladega	1	2018
Talladega	2	2019

Findings: 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.

Ecological needs for thinning (SPB suppression, RCW habitat, longleaf restoration, woodland/savanna restoration, etc.) have exceeded acres projected in the FEIS (p.3-447). Forest plan objective 1.4 reflects these needs. This is reflected in the acres of thinning as these are higher than projected.

Minerals leases for the Conecuh National Forest will be expiring at the end of 2020, and according to the Bureau of Land Management, several expressions of interest have been received.

Recommendations: 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.

III. Organizational Effectiveness

MQ-18. Are silvicultural requirements of the Forest Plan being met? MQ-19. Are Forest Plan objectives and standards being applied and accomplishing their intended purpose? (Goal 1)

A. Meeting Forest Plan Standards and Objectives

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. Integrated resource reviews are planned for two districts annually (Appendix B). Additionally, prior to implementing decisions, the decision documents (Table 1) are reviewed for compliance with the forest plan. Reviews, spot checks, and reporting (FACTS) indicate that silvicultural practices and project decisions are in compliance with the forest plan.

Amendments - No forest plan amendments were signed in FY 2018 or FY 2019.

Findings: Reviews, spot checks, and reporting (FACTS) indicate that silvicultural practices and project decisions are in compliance with the forest plan

Recommendations: Continued to review project decisions and implementation for Forest Plan compliance.

B. Economics/Social

MQ-23. – What changes are occurring in the social, cultural, and economic conditions in the areas influenced by national forests in the region?

Please refer to the *Five-Year Report for the Regional Broad-Scale Monitoring Strategy for the Forest Service Southern Region* and the *Broad-Scale Socioeconomic Monitoring Evaluation Report for the Southern Region* for evaluation of this monitoring question.

The annual budget continues to fluctuate over time. These fluctuations impact the forest management in many ways. The forest seeks to find new and innovative ways to continue the needed restoration and maintenance work as well as continuing to utilize conventional

methods. Additionally, the authorities granted via the Agriculture Act of 2014 including permanent status of stewardship authorities gives the forest flexibility within fiscal constraints.

Table 15: Annual Budget by Year	
FY 2019	$17,818,000
FY 2018	$18,013,000

Increasing urban interface, non-native invasive species, increased public interest, new policies, litigation, etc. create opportunities. Budget fluctuations increase the challenges of accomplishing goals and objectives and accepting new opportunities.

Findings: Fluctuating budgets present challenges to accomplishing forest plan goals and objectives, but also provide opportunities for efficiencies in utilizing available funds.

Recommendations: Continue to utilize all available sources of funding to accomplish program goals.

C. Evaluating New Information

Following is a list of the most current issues, concerns and opportunities for the National Forests in Alabama:

- **White-nose syndrome (WNS**) – In winter 2011/2012 WNS was confirmed in Russell Cave, Jackson on county Alabama. It has also been confirmed in Lauderdale counties. Additional information can be found at: http://whitenosesyndrome.org.
- **Southern Pine Beetle (SBP) –**FY2018 and FY2019 showed a decrease in SBP activity. Monitoring for activity and treatment continues where the need arises.
- **Non-native invasive species (NNIS**) continue as a forest health issue for the forest.
- **Thinning Overstocked Plantations** - A continuing forest health issue is the need for thinning of young (17 to 35 years old), overstocked loblolly pine plantation for the purpose of reducing their risk to SPB attack.
- **Global Climate change** implications and concern are coming to the forefront as more information becomes available.
- **Bankhead National Forest** - During the spring of 2020, imagery indicated possible late frost/freeze damage to emerging hardwood trees (white oak/hickory).

Chapter 3

I. **Evaluation of Outcomes on the Land –** (Summaries of Specific District Projects implementing the Forest Plan)

Bankhead National Forest – The following information from "Report to Permits Biologist, Ecological Services, US Fish and Wildlife Service", documents bat and cave monitoring efforts on the Bankhead National Forest during 2019.

> Bat and cave monitoring efforts are on-going on the Bankhead National Forest (BNF). Biennial hibernacula surveys are conducted to monitor Indiana and gray bat population trends during winter on the BNF.
>
> .
>
> Every other year, Forest Service personnel and partners (Alabama Department of Conservation & Natural Resources Nick Sharp, Consulting Biologist Tom Counts and Alabama A&M University William Stone) conduct Indiana and gray bat surveys in known hibernacula (Armstrong and Backwards-Confusion caves).
>
> Bankhead's two endangered bat hibernacula were surveyed on February 27, 2019. White-nose syndrome is known from both caves. On February 27, 2019, one tricolored bat was observed with visible fungus on its wings in Armstrong Cave.
>
> Cave surveys are on-going on Bankhead to assess bat presence/absence. In 2019, volunteers reported 17 tricolored bats in Goodwin Brothers Cave.
>
> **Mist-netting and Harp Trapping Efforts on BNF**
>
> In 2019, mist-netting was conducted by Dr. Wes Stone of Alabama A&M University. Mist-netting results are reported in the US Fish and Wildlife Service's Region 4 Bat Reporting Spreadsheet. No federally listed species were captured by Dr. Stone.
>
> Additionally, the Bankhead continues to conduct two Anabat Acoustic survey driving routes. Each route was conducted twice this summer. Data analysis has not been conducted on the 2019 survey routes.

During surveys on Bankhead National Forest, new locations were discovered for Rush Darter, Green Salamander, Black Warrior waterdog and spotted skunk.

II. 2020/21 Action Plan

1. **Action:** Based on the findings in this report that minerals leases for the Conecuh National Forest will be expiring at the end of 2020, and according to the Bureau of Land Management, several expressions of interest have been received, continue Forest Plan Amendment analysis process to reconsider the lands available for leasing as well as the stipulations that would apply.

Responsibility: Forest Planner, Forest Minerals Program Manager, Conecuh District Ranger

Due Date: December 31, 2020

2. **Action:** As implementation of the forest plan continues, new information becomes available that is relevant to management and must be considered prior to and during implementation. Incorporate new information in the forest plan and new project decisions and continue monitoring to assess efficacy and forest plan compliance. Specifically, incorporate current T&E species and critical habitat, focal species, and regional forester's sensitive species lists as these are updated.

Responsibility: Forest Biologist, Forest Planner, District Biologists.

Due Date: Ongoing

3. **Action:** Forest health threats impact landowners across boundaries and coordination with neighbors is critical to response efforts. Continue coordination with the partners and adjacent landowners to increase effectives of detection and response to insects, disease and NNIS including HWA. Develop partnerships with the state and other land management organizations to educate and facilitate cooperation.

Responsibility: Forest Silviculturist, Forest Botanist, District Biologists, District Rangers and Forest Supervisor.

Due Date: Ongoing

Appendix A – Contributors

Dagmar Thurmond – Staff Officer for Natural Resources and Planning
Felicia Humphrey – Forest Planner
Eugene Brooks – Forest Silviculturist
Allison Cochran – District Wildlife Biologist
Stanley Glover – Forest GIS Coordinator
Shantae Guy – Forest Engineer
Joseph Smith – Forest Fire Management Officer
John Moran – Fisheries Biologist
Marcus Ridley – Archaeologist (106)
Estella Smith – Forest Hydrology and Soil Scientist
Ryan Shurette – Forest Wildlife Biologist
Seth Tiffner – Timber Contracting Officer

Appendix B - Summary of Field Reviews and Other Administrative Activities

Annual Fire Management Preparedness Reviews and required Timber Sales reviews continued in FY 2018 and FY 2019.

1) Fire Management personnel conducted Preparedness Reviews on each district to ensure pre-suppression readiness. Fire Management participated in prescribed burning and guided accomplishment recording and documentation. Additionally, in accordance with policy, fire management staff conducted reviews on 10% of wildfires.

2) Previously established fixed monitoring plots (fuels) on the Conecuh, Oakmulgee and Talladega districts were re-visited to monitor prescribed burning activities.

3) A Timber Sales and Office Management Review was conducted in accordance with FS direction.

4) Field Visits for Silviculture, Planning, GIS, and Wildlife were conducted and documented by SO specialists.

Appendix C - Status of Previous M&E Report Action Plan – FY 2016/2017

1. **Action:** As implementation of the forest plan continues, new information becomes available that is relevant to management and must be considered prior to and during implementation. Incorporate new information in the forest plan and new project decisions and continue monitoring to assess efficacy and forest plan compliance. Specifically, incorporate current T&E species and critical habitat, focal species, and regional forester's sensitive species lists as these are updated.

Responsibility: Forest Biologist, Forest Planner, District Biologists.

Due Date: Ongoing

Status: Ongoing

2. **Action:** Forest health threats impact landowners across boundaries and coordination with neighbors is critical to response efforts. Continue coordination with the partners and adjacent landowners to increase effectives of detection and response to insects, disease and NNIS including HWA. Develop partnerships with the state and other land management organizations to educate and facilitate cooperation.

Responsibility: Forest Silviculturist, Forest Botanist, District Biologists, District Rangers and Forest Supervisor.

Due Date: Ongoing

Status: Ongoing

3. **Action:** While monitoring indicates that forest plan standards are being applied and the forest is meeting forest plan objectives, continued monitoring is necessary to assure continued compliance. Continue integrated resource reviews (formal or informal) on two units annually, including follow-up on action plans to ensure issues and compliance items are addressed

Responsibility: Staff Officers, District Rangers, Resource Specialists: Forest Biologist, Forest Hydrologist, Forest Engineer, Forest Silviculturist, Forest Soil Scientist, Forest Fire Management Officer, Timber Unit Leader, Forest Planner, Lands Unit Leader, Recreation Unit Leader.

Due Date: Annually, by September 30

Status: Informal reviews by program managers continue and are documented in the file.

Appendix D - List of Significant Research Findings, Inventories, Reports, and Updated Research Needs

Alabama Natural Heritage Program – 2018 Annual Report, 2019 Annual Report

Alabama's Statewide Comprehensive Outdoor Recreation Plan (SCORP) and Trail Plan - http://www.adeca.alabama.gov/Divisions/ced/Recreation/Pages/Planning.aspx

Alabama Forestry Commission Action Plan. https://forestry.alabama.gov/Pages/Management/Forest_Action_Plan.aspx

Statewide Forest Resources Plan, "Forests at the Crossroads." https://forestry.alabama.gov/Pages/Informational/Forms/Forests_at_the_Crossroads.pdf

Statewide Wildlife Action Plan: https://www.outdooralabama.com/sites/default/files/Research/SWCS/AL_SWAP_FINAL%20June2017.pdf

Alabama's "Forever Wild" program: https://www.alabamaforeverwild.com/

Research/Research Needs

During the spring of 2020, imagery indicated possible late frost/freeze damage to emerging hardwood trees (white oak/hickory) on the Bankhead National Forest. Forest Health management along with the NFsAL will continue to assess the situation.

References

Cochran, Allison. "Report to Permits Biologist, Ecological Services, US Fish and Wildlife Service."

USDA Forest Service "Assessing the Potential Effects of Climate Change on the Southeast United States" – TACCIMO Fact Sheet.

USDA Forest Service 2016 Southern Region Broadscale Monitoring Strategy

USDA Forest Service – June 2020 - *Broad-Scale Climate Change Monitoring Evaluation Report for the Southern Region*

USDA Forest Service - June 2020 - *Broad-Scale Socioeconomic Monitoring Evaluation Report for the Southern Region*

UDSA Forest Service – June 2020 - *Five-Year Report for the Regional Broad-Scale Monitoring Strategy for the Forest Service Southern Region*

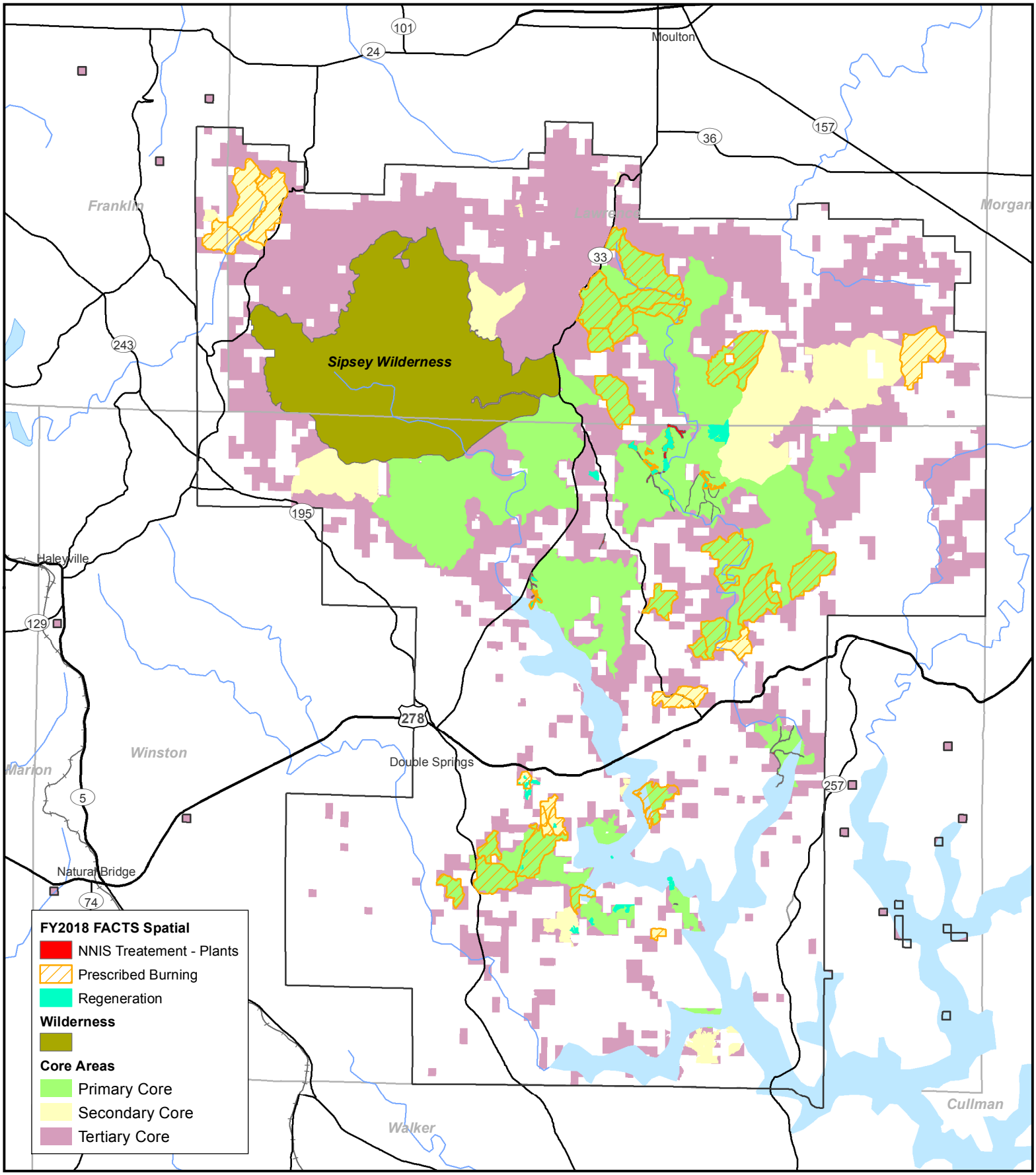
USDA Forest Service – March 2020 - Forest Carbon Assessment for the Southern Region

Appendix E – Maps of Ecosystem Restoration and Maintenance Activities

USDA

United States Department of Agriculture

FY2018 FACTS Spatial



Forest Service
Southern Region

National Forests
in Alabama

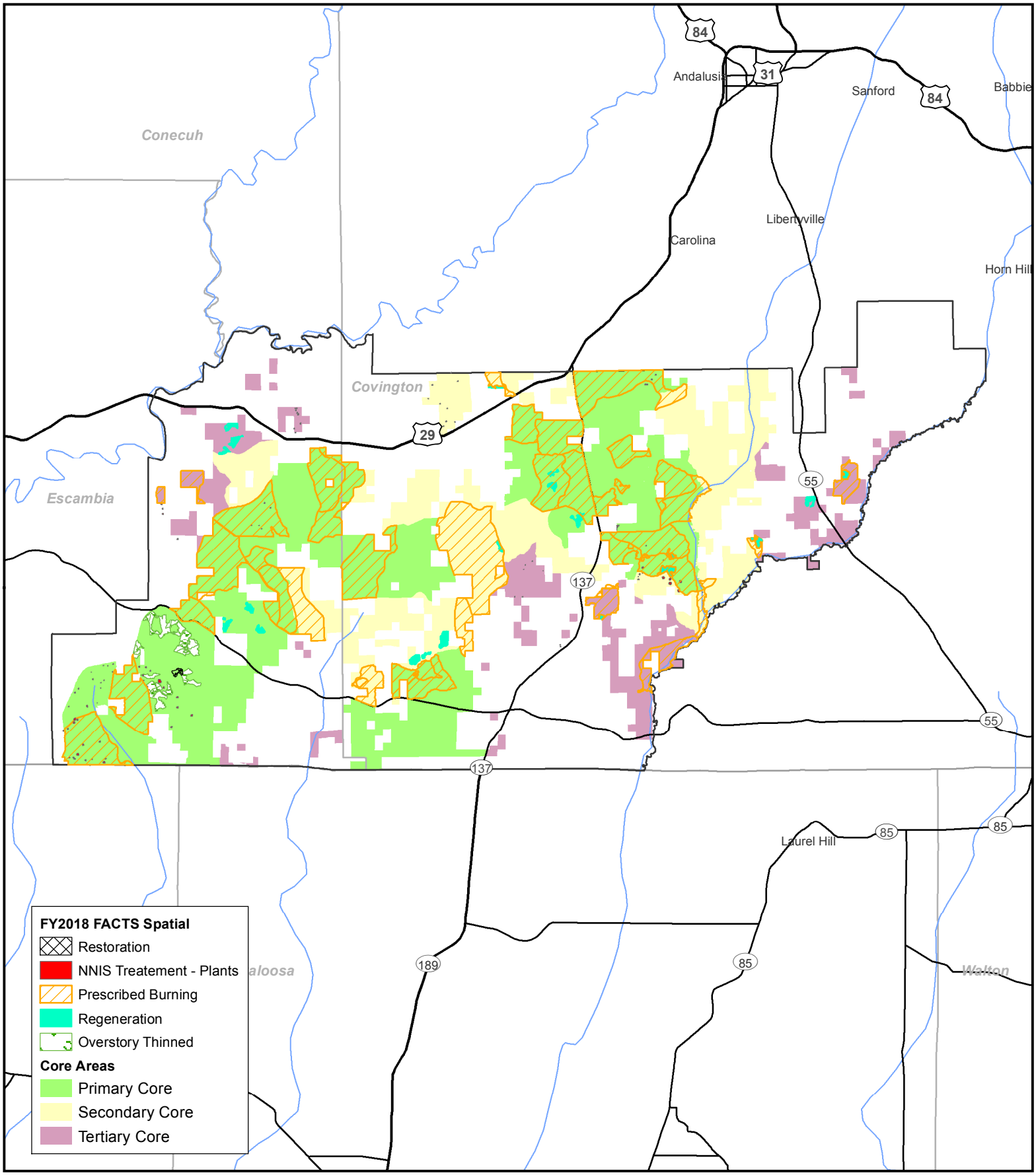
Date
6/11/2020

0 2 4 Miles

USDA

United States Department of Agriculture

Conecuh National Forest
FY2018 FACTS Spatial



Forest Service
Southern Region

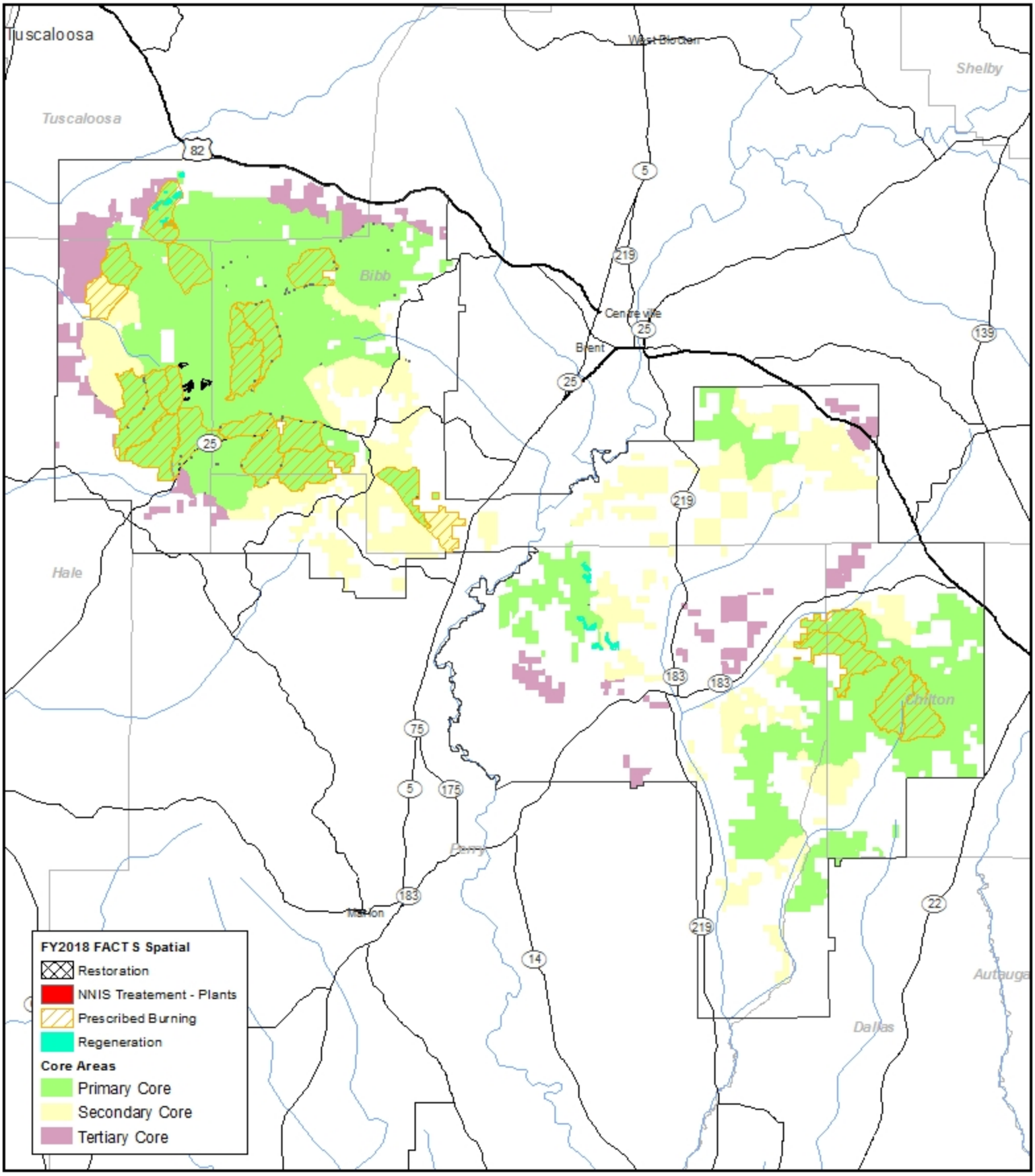
National Forests
in Alabama

Date
6/11/2020

0 2 4 Miles

USDA
United States Department of Agriculture

Talladega National Forest, Oakmulgee RD
FY2018 FACTS Spatial



Forest Service
Southern Region

National Forests
in Alabama

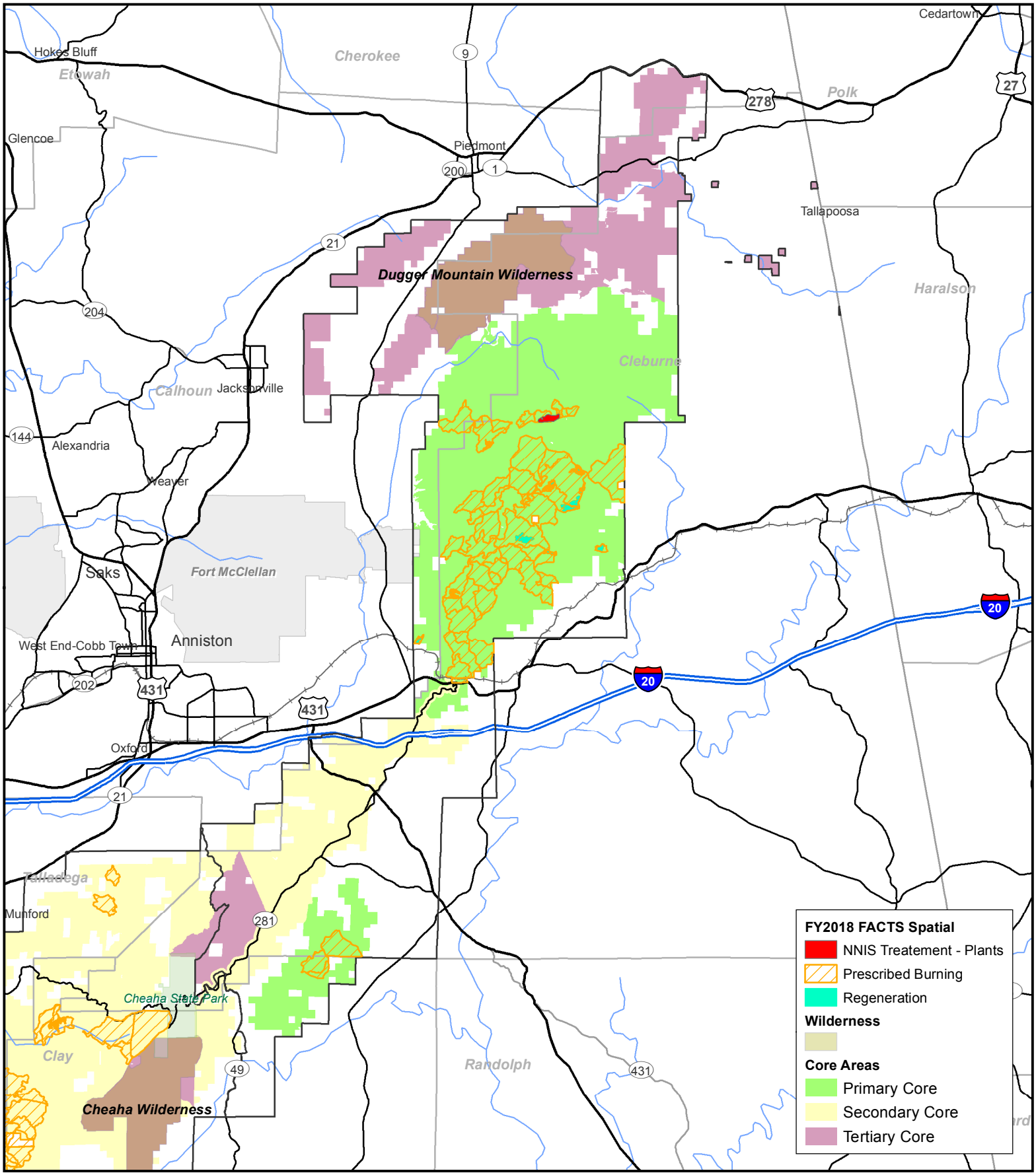
Date
6/11/2020

0 2 4 Miles

USDA

United States Department of Agriculture

Talladega National Forest, Shoal Creek RD
FY2018 FACTS Spatial



Forest Service
Southern Region

National Forests
in Alabama

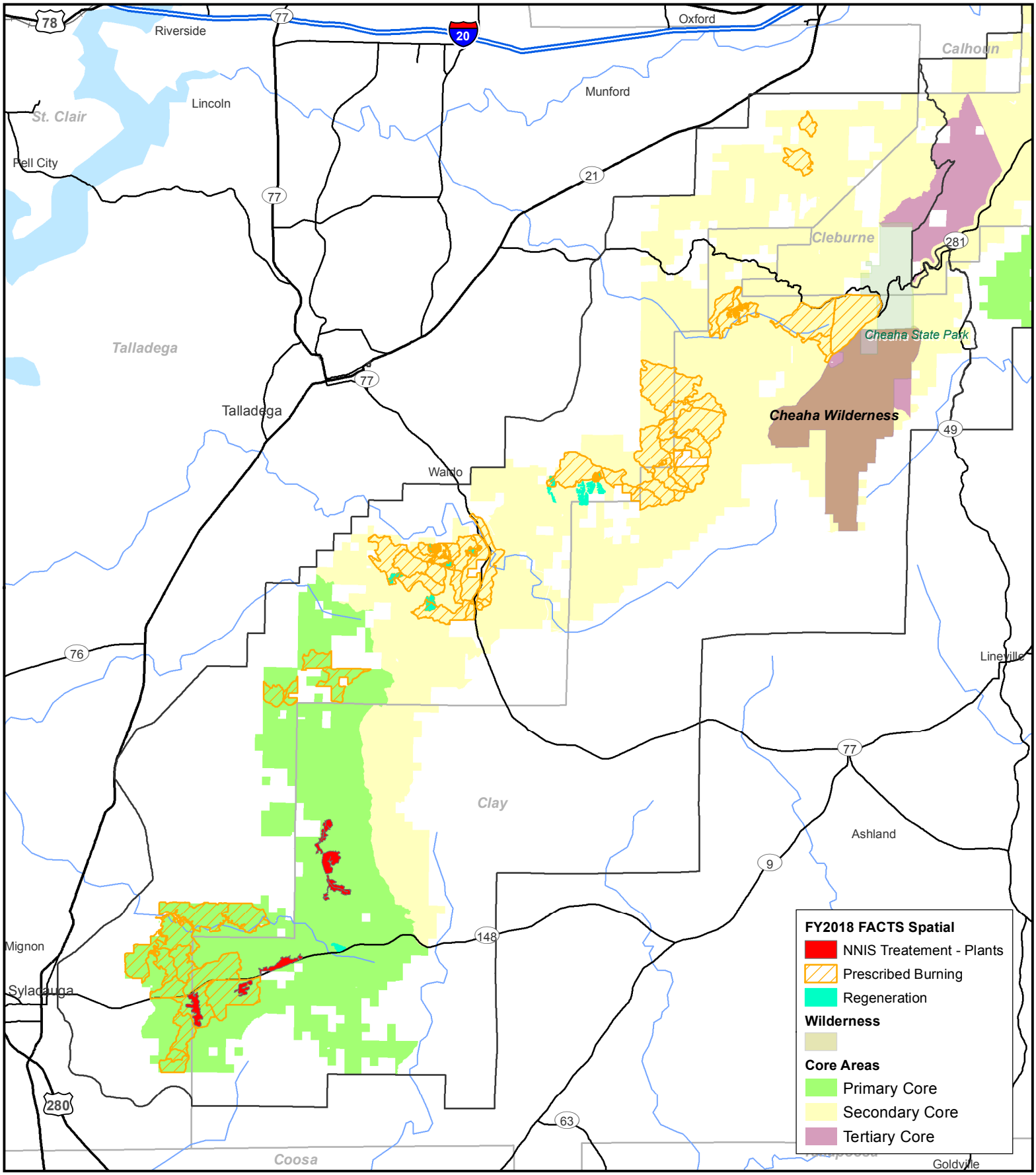
Date
6/11/2020

0 2 4 Miles

USDA

United States Department of Agriculture

Talladega National Forest, Talladega RD
FY2018 FACTS Spatial



Forest Service
Southern Region

National Forests
in Alabama

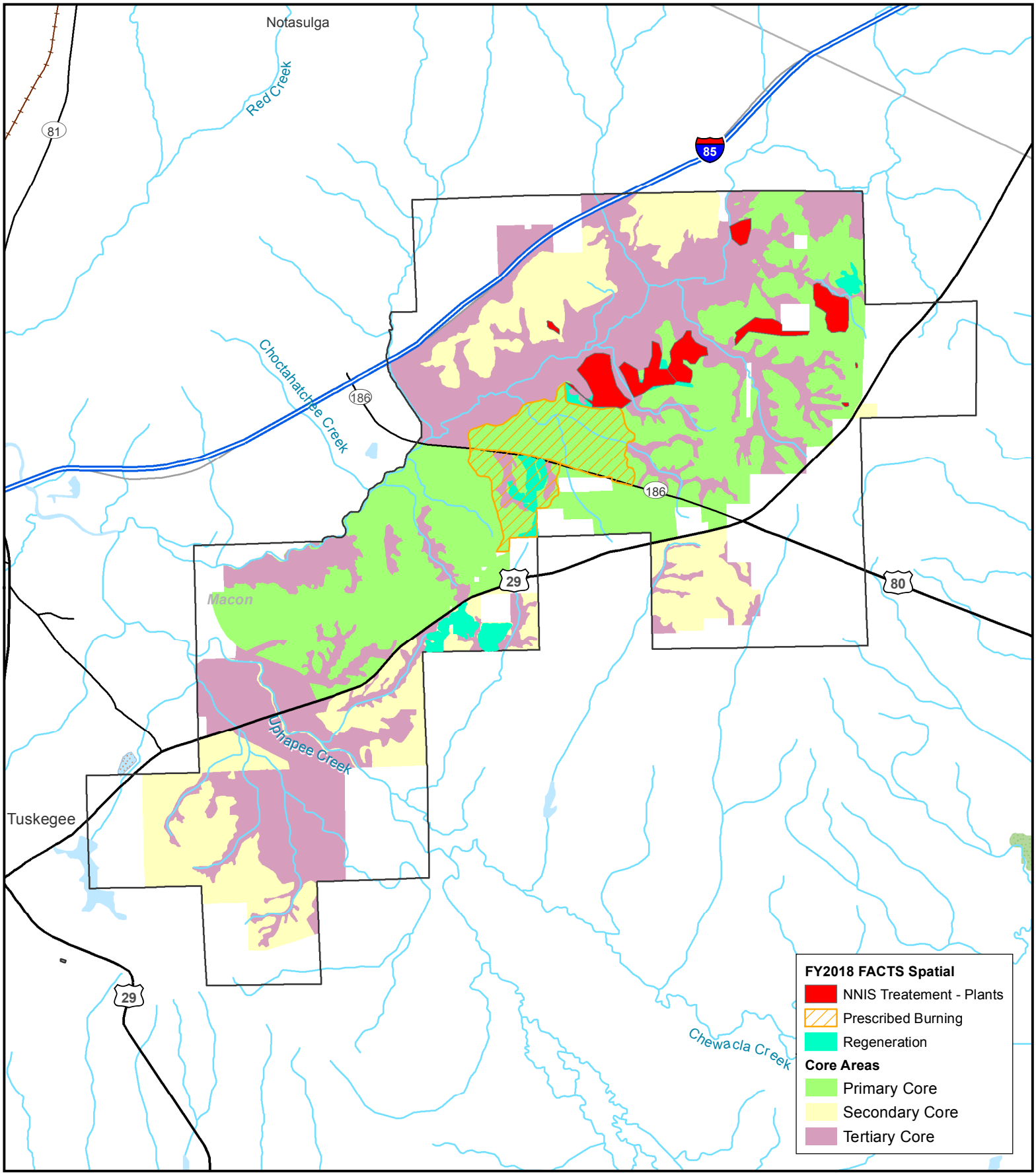
Date
6/11/2020

0 1.5 3 Miles

USDA

United States Department of Agriculture

Tuskegee National Forest
FY2018 FACTS Spatial



Forest Service
Southern Region

National Forests
in Alabama

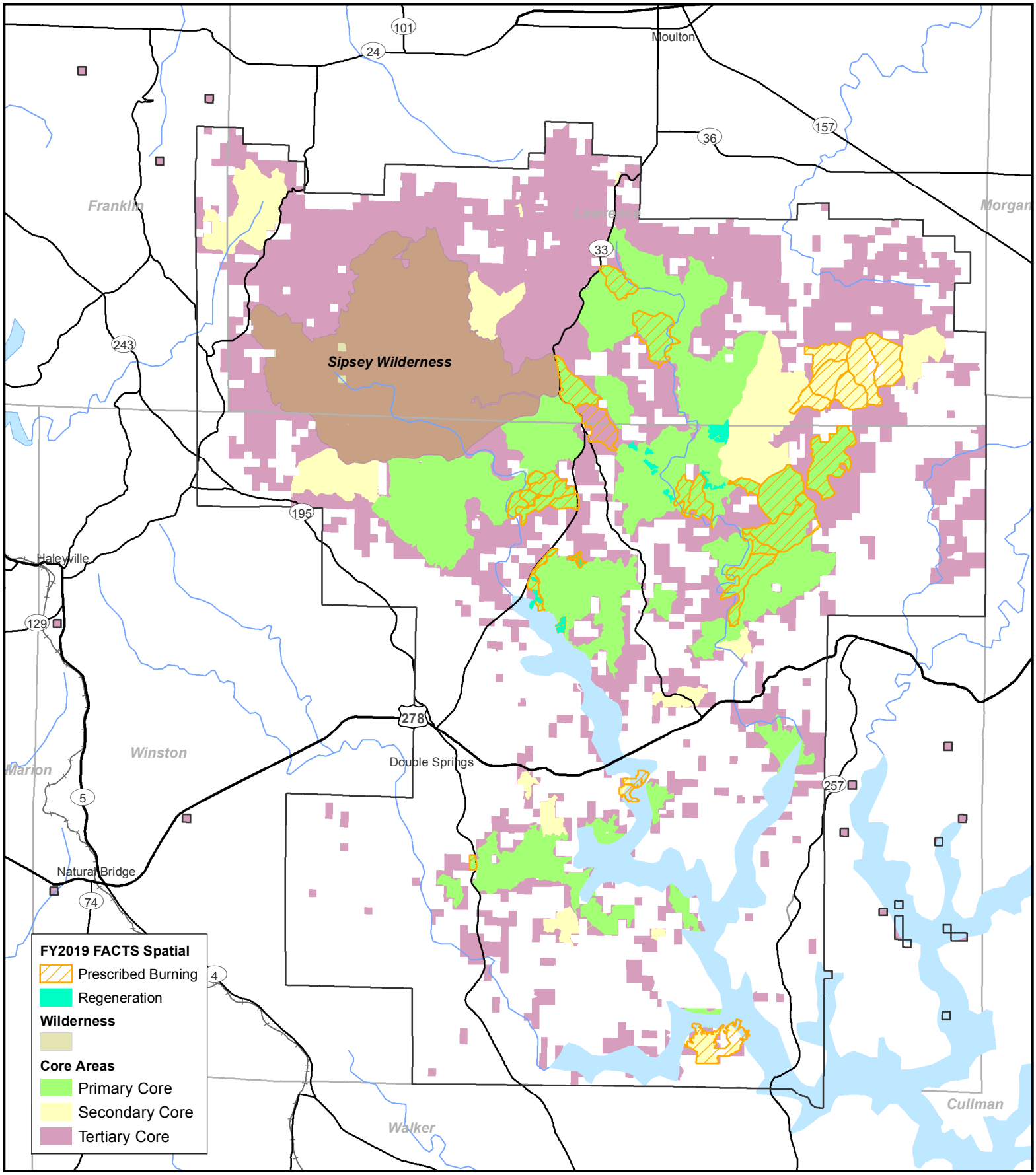
Date
6/11/2020

0 0.5 1 Miles

USDA

United States Department of Agriculture

Bankhead National Forest
FY2019 FACTS Spatial



Forest Service
Southern Region

National Forests
in Alabama

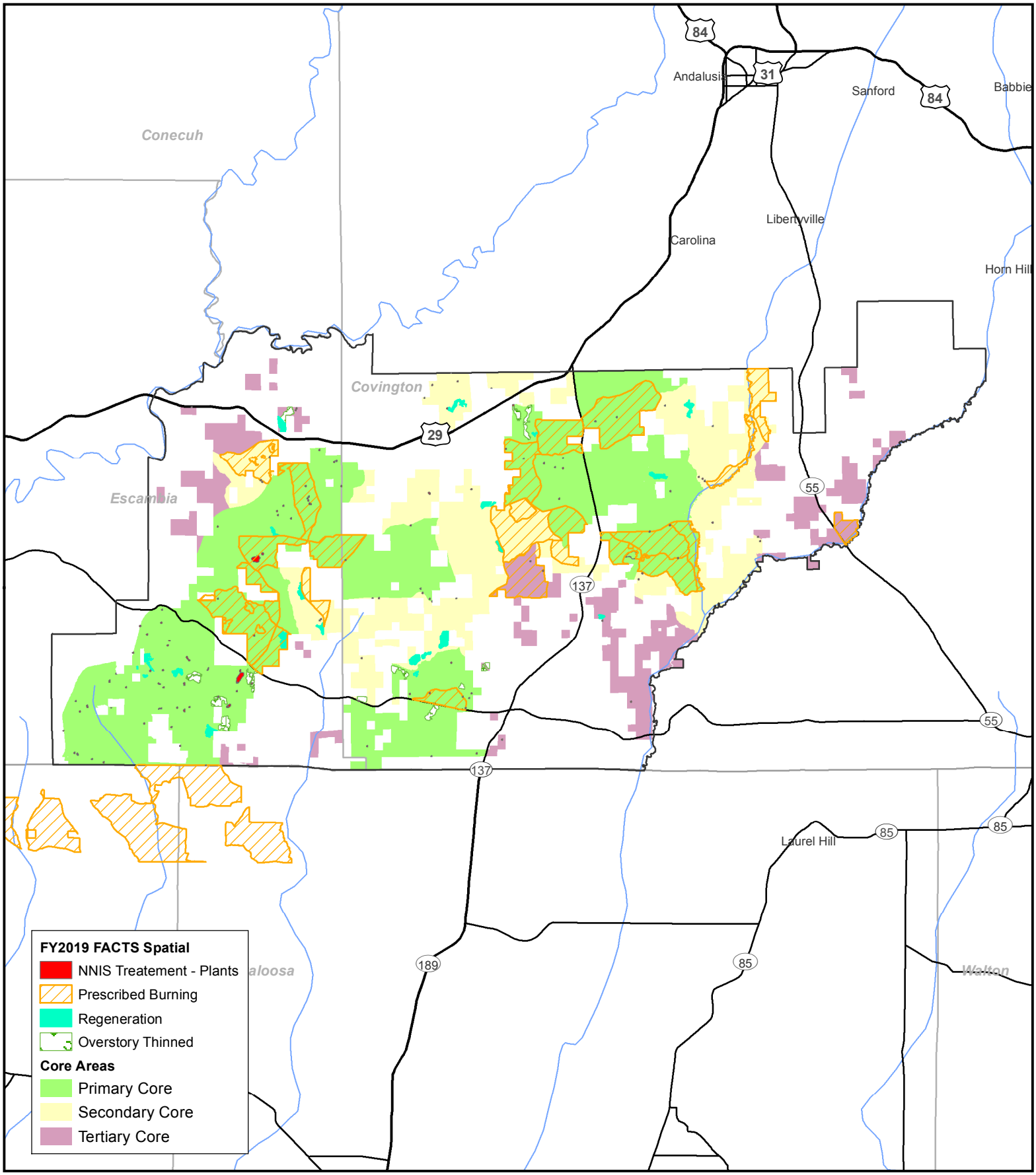
Date
6/11/2020

0 2 4 Miles

USDA

United States Department of Agriculture

Conecuh National Forest
FY2019 FACTS Spatial



Forest Service
Southern Region

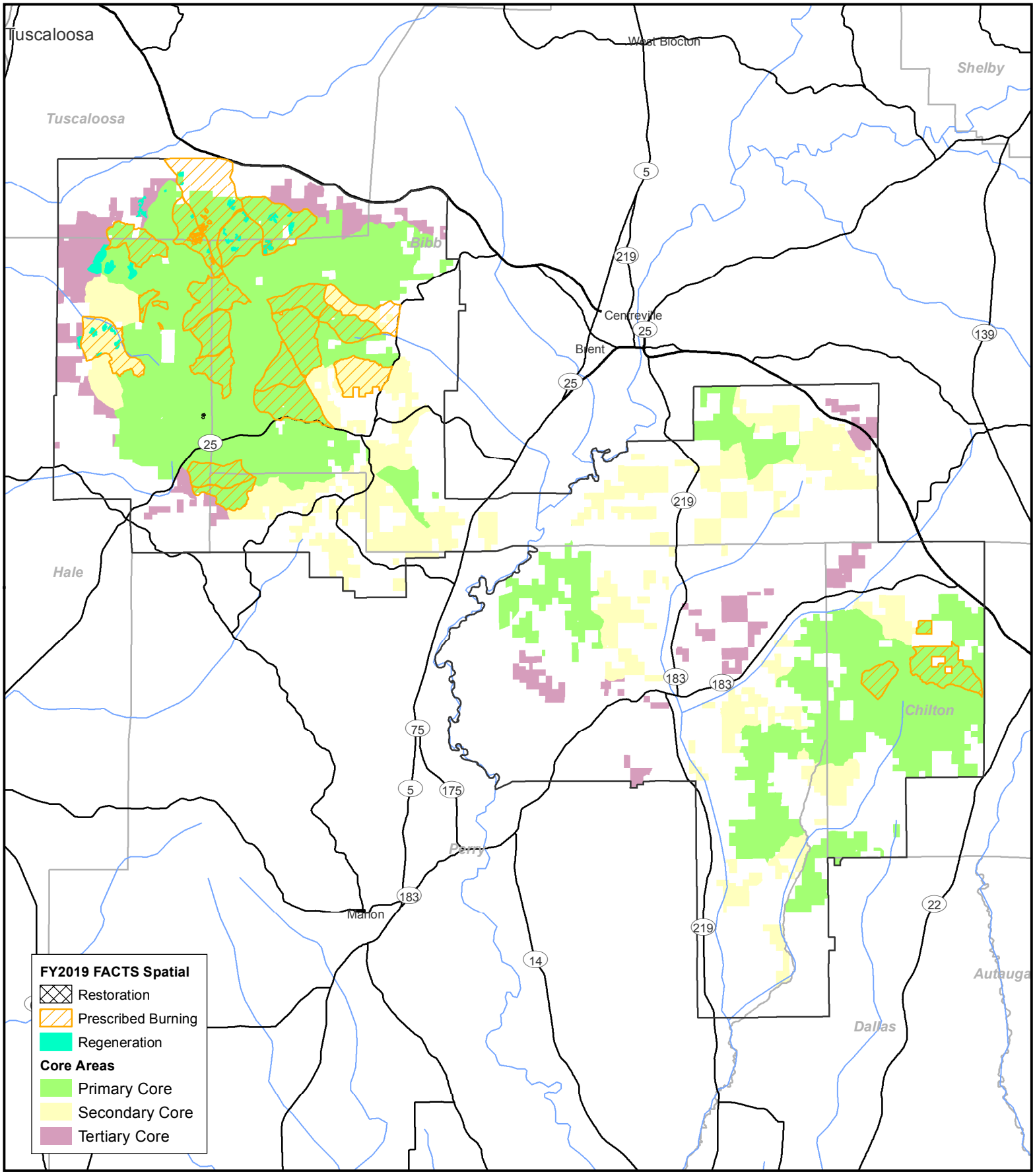
National Forests
in Alabama

Date
6/11/2020

0 2 4 Miles

USDA
United States Department of Agriculture

Talladega National Forest, Oakmulgee RD
FY2019 FACTS Spatial



Forest Service
Southern Region

National Forests
in Alabama

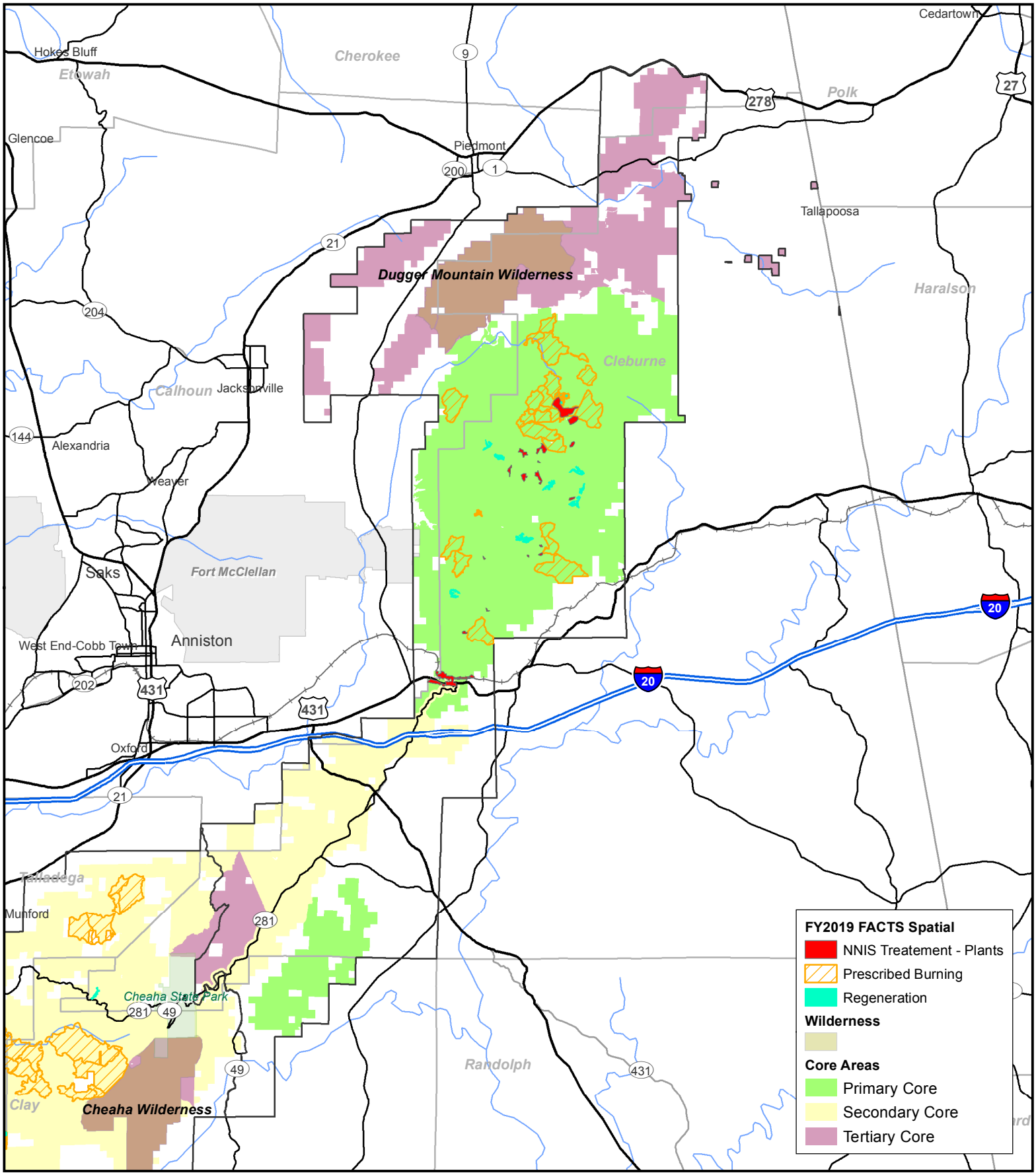
Date
6/11/2020

0 2 4 Miles

USDA

United States Department of Agriculture

Talladega National Forest, Shoal Creek RD
FY2019 FACTS Spatial



Forest Service
Southern Region

National Forests
in Alabama

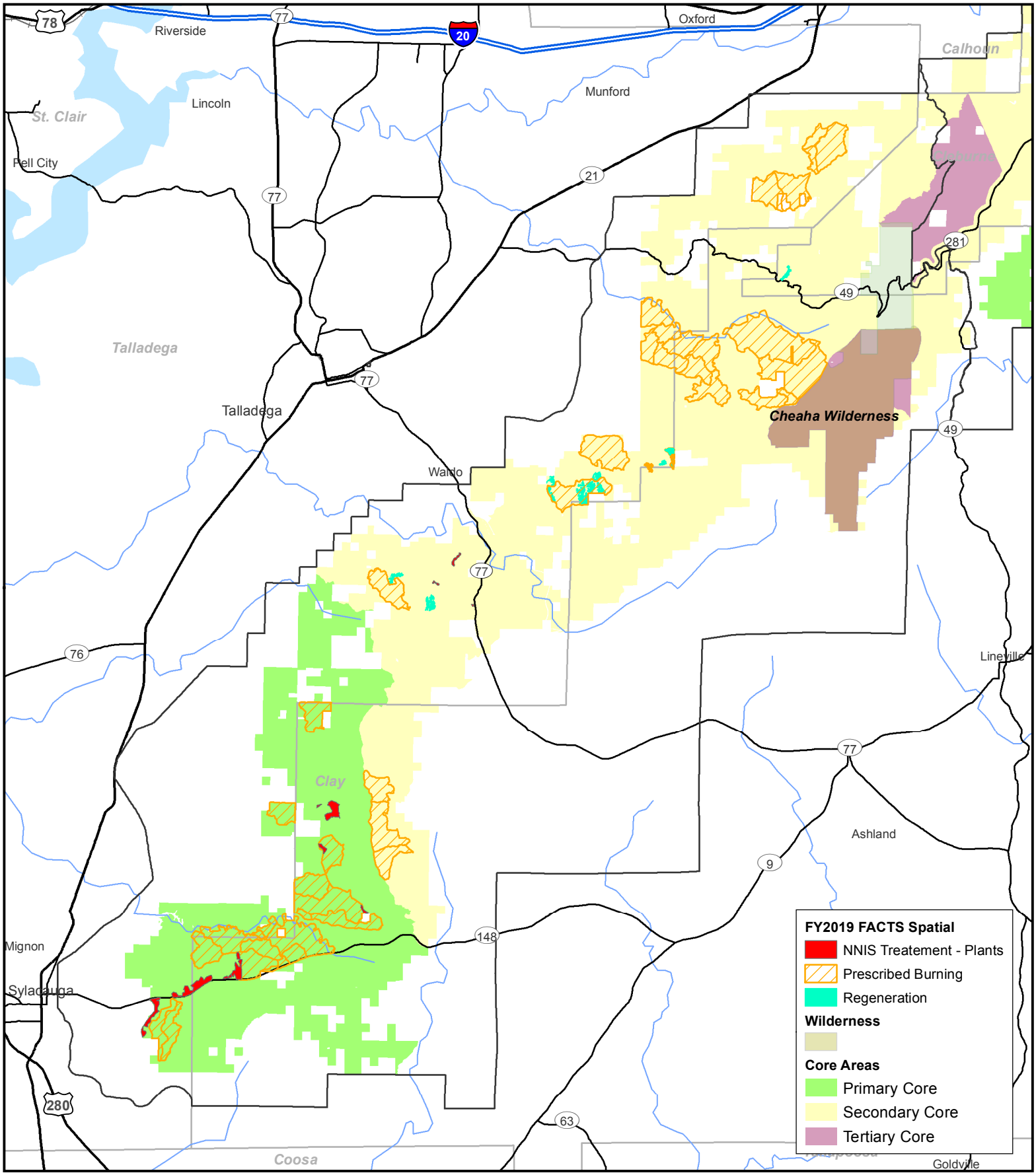
Date
6/11/2020

0 2 4 Miles

USDA

United States Department of Agriculture

Talladega National Forest, Talladega RD
FY2019 FACTS Spatial



Forest Service
Southern Region

National Forests
in Alabama

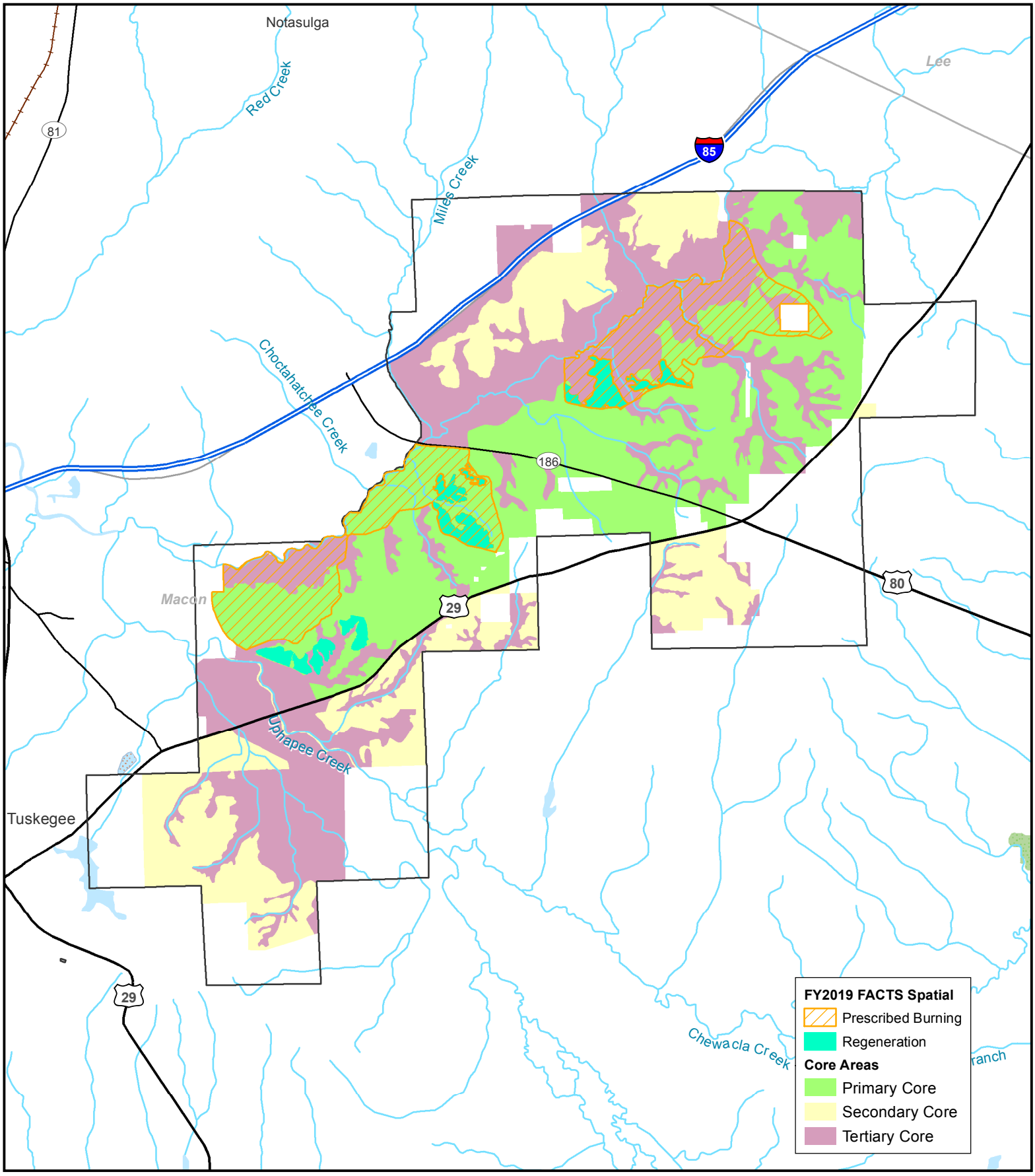
Date
6/11/2020

0 1.5 3 Miles

USDA

United States Department of Agriculture

Tuskegee National Forest
FY2019 FACTS Spatial



Forest Service
Southern Region

National Forests
in Alabama

Date
6/11/2020

0 0.5 1 Miles

National Forests in Alabama
FY 2018 and FY 2019 Biennial Monitoring Evaluation Report

Response Form: Monitoring and evaluation is an ongoing process and your feedback is important to us. If you have any comments you would like to share, we invite you to do so at this time.

Mail comments to:	USDA Forest Service National Forests in Alabama 2946 Chestnut Street Montgomery, Alabama 36107
Or:	Planning Unit