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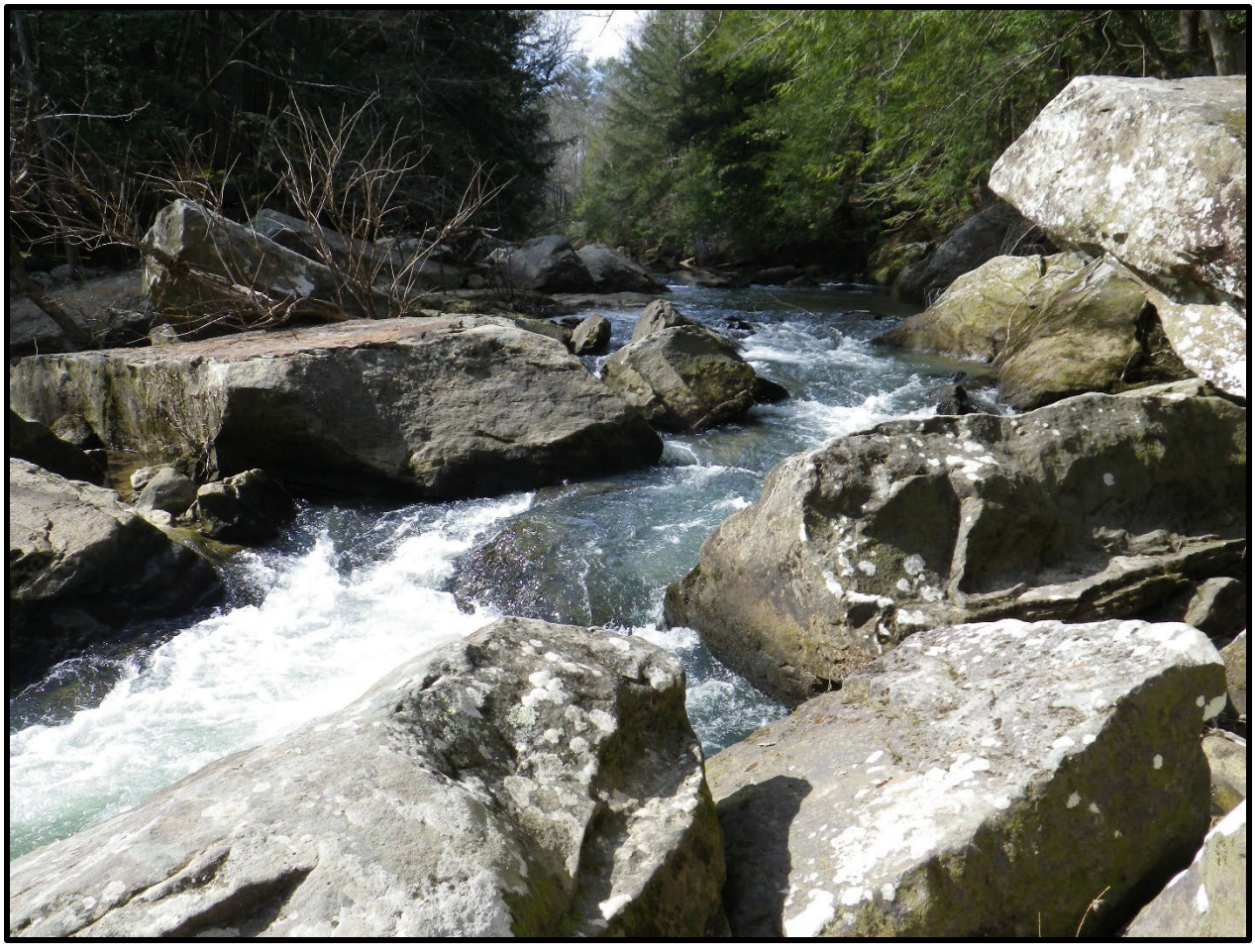
Southern Region, National Forests in Alabama | September 2024

Biennial Monitoring Evaluation Report for the National Forests in Alabama

Fiscal Years 2022 - 2023



Sipsey Fork Wild and Scenic River on the Bankhead National Forest. USDA Forest Service photo by John Garcia.

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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 the ecosystems, the social and economic contributions, 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.

Every national forest or grassland has a land management 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 the state of the forest or grassland once the goals of the plan are met. The land management plan includes a monitoring plan, organized around a set of monitoring questions and indicators that are designed to track progress toward achieving the desired conditions. Monitoring of certain resources is required by law, regulation, or policy (see box below for required monitoring topics). Other monitoring occurs depending on specific needs of the national forest or grassland. Under the current planning rule, monitoring questions developed for the monitoring plan must be "within the financial and technical capability" of the Forest Service, meaning that we must have the money and ability, including support from partners, to actually carry out the strategic monitoring outlined in the monitoring plan.

Every two years, each forest or grassland compiles and evaluates monitoring results and drafts a biennial monitoring evaluation report (BMER) like this one. If the monitoring report reveals that we are not quite meeting the mark, then there might be a need to change the land management plan, the management activities, the monitoring plan, or to reassess current conditions and trends—this is adaptively managing. Monitoring results allow 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. BMERs are critical to adaptive management because they tell us and the public whether the land management plan is working. Although we don't make any decisions in BMERs, they are a great opportunity to document and share monitoring results.

Our land management plan is available on our website [Forest Plan] and the monitoring plan chapter is found in Chapter Five and Appendix F.

Monitoring questions must address the following topics (per 36 CFR sec. 219.12 and Forest Service Manual 1909.12 section 32.13 - Content of the Plan Monitoring Program):

(i) The status of select watershed conditions.

(ii) The status of select ecological conditions including key characteristics of terrestrial and aquatic ecosystems.

(iii) The status of focal species to assess the ecological conditions.

(iv) The 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.

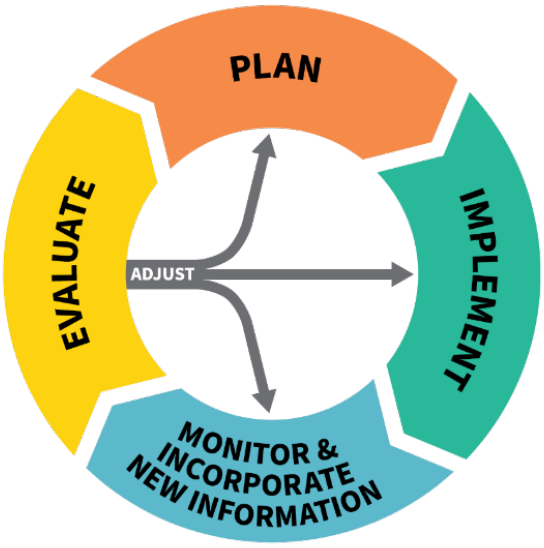
(v) The status of visitor use, visitor satisfaction, and progress toward meeting recreation objectives.

(vi) Measurable changes on the plan area related to climate change and other stressors that may be affecting the plan area.

(vii) Progress toward meeting the desired conditions and objectives in the plan, including for providing multiple use opportunities.

(viii) The effects of each management system to determine that they do not substantially and permanently impair the productivity of the land.

(viiii) Social, economic, and cultural sustainability must also be addressed in the monitoring plan because sustainability is an inherent part of several of the required monitoring items.



Adaptive Management Cycle

Partnerships and Data Sources

To accomplish our mission, the Forest Service partners with land management agencies across all levels of government, with nonprofit and for-profit entities, universities, and communities large and small. The diversity of our partners parallels the breadth of Forest Service work that includes: managing the nation's 193 million acres of National Forest System lands to sustain healthy terrestrial and aquatic ecosystems; conducting collaborative research that connects the agency to hundreds of partners around the world; supporting States, Tribes, communities, and nonindustrial private landowners through technical and financial assistance; protecting communities and the global environment from catastrophic wildland fires, climate change and invasive species; and inspiring life-long connections to nature for every American.

Monitoring can be expensive, time-consuming, and labor-intensive, so we rely on the help of our partners and work collaboratively with them to accomplish monitoring objectives. Some of the entities that we partner with are listed in Appendix C, Contributors and Partners.

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.

Report Summary

This 2024 Biennial Monitoring Evaluation Report (BMER) for the National Forests in Alabama (NFsAL) documents monitoring activities that occurred during fiscal years (FY) 2022 through 2023. Resource specialists answered all of the 23 monitoring questions to determine if current activities described in the National Forests in Alabama Monitoring Plan are moving the Forest toward or maintaining the desired conditions or objectives.

The detailed resource data and specialist reports that were used to build this monitoring report are available on request by contacting us at 2946 Chestnut Street, Montgomery, AL 36107 and (334) 832-4470 or comments-southern-alabama@usda.gov. Each new monitoring report builds upon the evaluations and recommendations that precede it. This monitoring and evaluation report and previous reports are available at Forest Plan Monitoring where you can review previous recommendations made to move our forest toward the desired conditions and objectives in our land management plan.

Of the 23 monitoring questions examined, we are meeting plan objectives or progressing toward our desired conditions in 9 monitoring questions. To move the National Forests in Alabama closer to the desired condition for vegetation and habitat, we need to increase active management of forests and shrublands to reduce fuels and promote regeneration of species like longleaf pine. We also need more active management to increase forest diversity at the landscape scale, expand early seral habitat, and minimize insect and disease outbreaks. Increasing active management will directly and indirectly increase social and economic contributions to the forest's area of influence.

Improved monitoring methods are needed to monitor wildlife and aquatic species. Several monitoring questions need to be refined to use existing relevant monitoring and data sources,

capitalize on existing partnerships, and apply best available science. Additionally, we could develop more meaningful monitoring questions or indicators for assessing recreation on the forest.

Table 1 – Recommended Changes

The following table tallies our recommended changes based on evaluation of the monitoring questions addressed in this report. Briefly, it provides the overall totals for how many monitoring questions or indicators are meeting the Forest Plan direction, or whether changes to the Forest Plan, management activities, monitoring plan, or new assessment should be considered. See Table 15 at the end of this report for a more detailed summary of the monitoring questions, results, and recommendations.

Table 1. Adaptive management recommendations for all monitoring questions addressed in this report.

Recommendations	Yes	No	Uncertain
Land Management plan direction met	9	6	8
Change to land management plan	7	16	0
Change to management activities	2	15	6
Change to monitoring plan	5	16	2
Assessment	0	23	0

Forest Supervisor's Certification

This report documents the results of monitoring activities that occurred from fiscal year 2022 through fiscal year 2023 on the National Forests in Alabama.

I have evaluated the monitoring and evaluation results presented in this report. I have examined the recommended changes to the 2004 Land Management Plan. I therefore consider the 2004 Land Management Plan sufficient to continue to guide land and resource management of the National Forests in Alabama and plan a deeper examination of the recommended changes through engagement with resource specialists.

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Status of Select Ecosystem Conditions

Summary

The Forest Plan emphasizes restoration of native ecosystems not abundant on private lands, including rare communities. The Forest Plan directs us to reduce risks from insects and disease and minimize adverse effects of non-native invasive species. Watershed management focuses on providing resilient and stable conditions to support water quality and quantity needed for ecological function and beneficial water uses. Biological diversity is critical to sustaining healthy ecosystems. While we work in many landscapes and discrete communities, longleaf pine ecosystems are our priority for restoration.

Acres of longleaf pine continue to grow across the National Forests in Alabama (NFsAL) and red-cockaded woodpecker (RCW) trends since 2013 show significant increases. These trends suggest maintenance and expansion of open mature pine habitats is occurring at a landscape scale.

Threats to ecosystem health include dense stands of off-site trees and the spread of invasive species, insects, and disease. Feral swine continue to damage native wildlife habitat, especially in riparian areas and streambeds. Invasive plants continue to be a challenge for the NFsAL. During this monitoring period, Southern Pine Beetle (SPB) activity is an increased forest health threat.

Monitoring Questions and Key Results

- 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?

Rare Communities

The number of active red-cockaded woodpecker (RCW) clusters can be used as an indicator for upland pine-associated rare communities and associated species of concern. If active clusters increase over time, then it can be assumed that open pine habitats and the associated fire-maintained understory components, are being maintained and are expanding on the landscape. The table below shows numbers for historical (2002), goals, and 2022 and 2023, active clusters per district.

Table 2. RCW Cluster Growth

Unit	FY 2002	Short Term (Plan Horizon) Population Goal	Long Term District Population Goal (Active Clusters)	FWS De-listing Population Goal (Potential Breeding Groups)	FY 2022 Active Clusters	FY 2023 Active Clusters
Conecuh	19	28	309	250*	101	107
Oakmulgee	120	185	394	250	200	211
Shoal Creek	8	18	125	100**	44	46
Talladega	0	10	110	100**	28	35

*Combined with Blackwater State Forest; **Combined Shoal Creek and Talladega Goal

Rare species and plant community monitoring was conducted across the NFsAL. In April 2022 and March 2023, the Forest Biologist surveyed the two known Harper's heartleaf (*Hexastylis speciosa*) populations on Oakmulgee, and populations are stable. Researchers from Mississippi State University initiated a study in 2023 to investigate pollination ecology of this Regional Forester's Sensitive Species in response to observations over the past decade that very limited fruiting and seed viability was produced in these two populations.

The one known Kentucky yellow lady slipper (*Cypripedium kentuckiense*) population for the NFsAL on Talladega was also visited in April 2022 and 2023. Populations appear stable, although the number of flowering stems in 2023 were significantly fewer (less than 5) possibly due to a growing season burn.

Figure 1. Kentucky yellow lady slipper (Cypripedium kentuckiense). USDA Forest Service Photo by Ryan Shurette

White fringeless orchid surveys were conducted. Shoal Creek populations remain stable. Suitable habitat and associate plant species (including *Platanthera clavellata*) were found at several sites on Bankhead.

A cave microclimate study was initiated on one bat hibernaculum on Bankhead by partners.

Major Forest Communities Structure and Composition and Key Successional Stages

America's Longleaf Restoration Initiative and the Million Acre Challenge (MAC)

In 2017, the Forest Service Southern Region issued the Million Acre Challenge to put an additional one million acres of NFS lands on the path towards longleaf pine restoration. As part of the challenge, the NFsAL identified a goal of restoring 40,970 acres of longleaf. Our strategy focuses on opportunities to achieve multiple goals, such as restoring forest health, red-cockaded woodpecker habitat, and open woodland structure and native, fire-maintained ecosystems. We work with partners, across landscapes, using many silvicultural and management tools towards these goals in collaboration across the range of longleaf through America's Longleaf Restoration Initiative. Refer to Appendix F for more details.

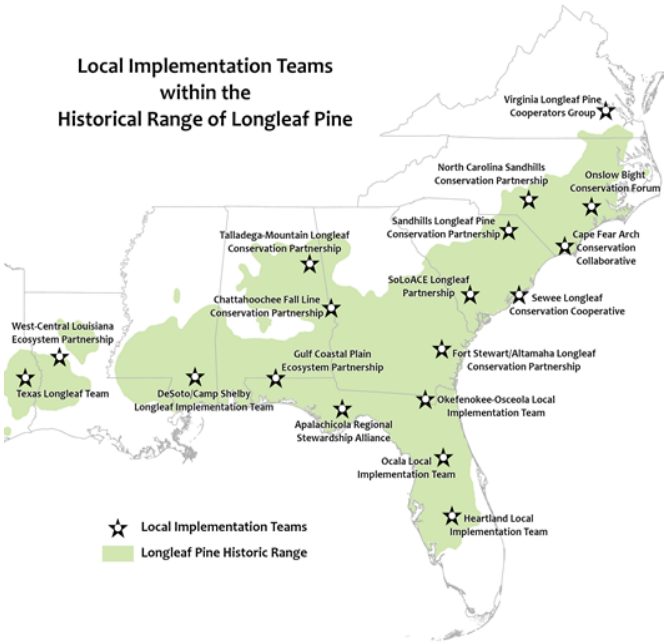


Figure 2. Local Implementation Teams within the Historical Range of Longleaf Pine in the Southern Region.

Table 3. Existing vs. Potential Acreage of Longleaf Pine Communities, NFsAL.

Forest Unit (Total Acres)	2002 LL Acreage(ac)	2018 LL Acreage (ac)	2023 LL Acreage(ac)	Remaining Restoration Opportunity (ac)	LRMP Long-term Objective Acreage* (ac)	Existing LL (2023) Acreage/ Total Objective (%)	Longleaf Composition of Total Forested Landscape** (%)
Longleaf Pine (NFsAL)	150,792	160,430	174,229	27,171	201,400	86%	30%
Bankhead (185K ac)	2,196	3,230	4,831	2,569	7,400	65%	4%
Conecuh (84K ac)	41,478	45,000	48,997	1,003	50,000	98%	60%
Oakmulgee (158K ac)	61,965	65,000	68,801	11,199	80,000	86%	51%
Talladega Division (231K ac)	43,024	45,000	48,833	11,167	60,000	81%	26%
Tuskegee (11K ac)	2,129	2,200	2,767	1,233	4,000	69%	37%

* Acreage based upon LRMP (Forest Plan)

** Based upon total NFsAL forest acreage of 670,000 acres

Longleaf improvements through overstory silvicultural treatments included 2,372 acres in 2023 and 508 acres in 2022. This is an increase from the previous BMER reporting period. Land acquisitions included 221 acres in 2023 and 450 acres in 2022.

Prescribed burning occurred on approximately 145,629 and 135,312 acres in 2022 and 2023, respectively. Cumulatively 36,541 more acres were treated with prescribed fire during these two years as compared to the prior two years (2020-2021).

Mechanical fuels treatments were accomplished on approximately 2,448 and 1,570 acres in 2022 and 2023, respectively. In Fiscal Year (FY) 2022, 814 acres and in FY 2023, 2,346 acres were burned under Stevens Agreements. Burns under the Stevens Amendment (Public Law 100.463, Section 8136) are conducted on private lands by Alabama Forestry Commission within ten miles of National Forest system lands.

Red-cockaded woodpecker (RCW) trends since 2013 show significant increases across all occupied districts. This trend suggests maintenance and expansion of open mature pine habitats is occurring at a landscape scale.

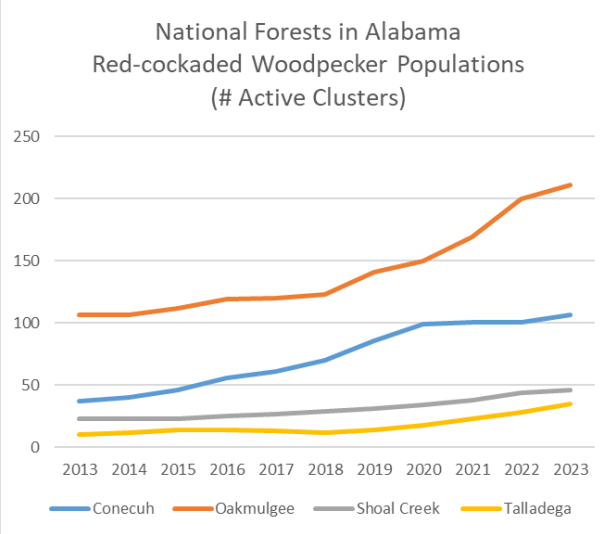


Figure 3. Red-cockaded woodpecker population trends (active clusters) across occupied NFs in Alabama districts.

Aquatic Habitat

Aquatic species were monitored on Bankhead in 2023. Fish sampling and Index of Biotic Integrity (IBI) were conducted in Bear Creek. In a 409 linear stream meter survey, 126 fish and 13 species were captured resulting in an IBI score of 42, the lower range of the "good" category. Nine Blueface Darters *(Etheostoma cyanoprosopum*) were captured in the reach. The Blueface Darter is a very rare fish and has an extremely limited geographic range, restricted to <20 km of 2 stream systems, the upper Bear Creek (TN River) and Hubbard Creek (Sipsey Fork, upstream of Kinlock Falls). The fish community in this reach of Bear Creek is in good condition, including the Blueface Darter. A small, low dam spans the channel and is a barrier to upstream migration of aquatic organisms. Degradation of stream habitat caused by unauthorized vehicle and horse use in the stream and riparian area is planned for remediation.

Figure 4. Blueface Darters captured in Bear Creek, Bankhead Ranger District, 04/12/2023. Photo credit: Dylan Shaw (APCO).

Cooperative monitoring through agreement with the Southern Research Station's Center for Aquatic

Technology Transfer, Alabama Power Company and NFsAL continued in this period. A total of 4,109 fishes representing 39 species within eight families were collected in the nine reaches combined. The Region 8 Regional Forester's Sensitive Species (RFSS) Tuskaloosa Darter (*Etheostoma douglasi*) was found at six of the nine locations sampled. The RFSS Sipsey Darter (*Etheostoma sp. cf. bellator "A"*) and Bankhead Darter (*Percina sipsi*) were found at three of the five sites sampled in the Sipsey Fork drainage. All three RFSS fishes were found within approximately the same reaches during previous Lewis Smith Lake Transition Project (LSLTP) fall sampling. Since 2015, seven qualitative mussel surveys have been conducted in selected reaches within the transitional zones of Lewis Smith Reservoir, including one on 09/25/2023. IBI scores at the nine sites monitored in 2023 ranged from 40 to 52 (fair to excellent), most (7 out of 9) sites were in the good condition category, one in fair, and one in excellent. Overall, there were no notable changes in mussel assemblages between LSLTP and later surveys.

Forest Health Threats

Acidic Deposition

Acidic deposition of sulfates and nitrogen compounds from anthropogenic sources can negatively impact sensitive ecosystems. Trends in both total nitrogen and total sulfur deposition on the NFsAL continue to decline, both on the forests and nationally. These trends are consistent with the improvement in visibility at Sipsey Wilderness on the Bankhead National Forest. Data is from the National Atmospheric Deposition Program and IMPROVE.

Non-Native Invasive Species

Significant feral pig infestations exist on the Bankhead and Oakmulgee with minor infestations persisting on the Tuskegee and Shoal Creek. Feral pig trapping occurred on 13,032 acres (trapping targeting entire sounders) in 2022 and 24,946 acres in 2023. The Bankhead expanded their control efforts into the Sipsey Wilderness Area in 2022, the first feral pig trapping effort within wilderness in the Southern Region. FY 2022 was an exceptional year, with the highest number of pigs removed on Bankhead (421 pigs, including 26 sounders. Of those, seven were from wilderness). In 2023, 127 pigs were removed with similar trap time investments which may indicate that efforts are reducing populations locally. On the Oakmulgee, APHIS reported 468 and 485 pigs removed for 2022 and 2023, respectively. While success is being realized in some parts of NFsAL, more work remains, and damage from pigs is observed in sensitive habitats like glades and wetlands.

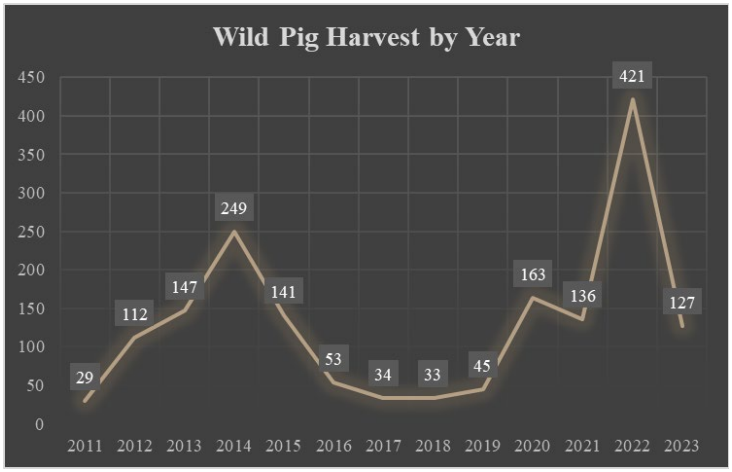


Figure 5. Bankhead feral pig removal trends since 2011.

The National Forests in Alabama treated a total of 1,385 acres of invasive plants in 2022 and 992 acres in 2023. Specifically, the Conecuh reported treatment of 165 and 145 acres of cogongrass treated with herbicide in 2022 and 2023, respectively.

Southern Pine Beetle

Southern Pine Beetle (SPB) is the most economically important forest pest in the southern United States. The Forest Service prepares county summary hazard maps to help identify areas with potential for experiencing significant SPB activity. See Appendix H.

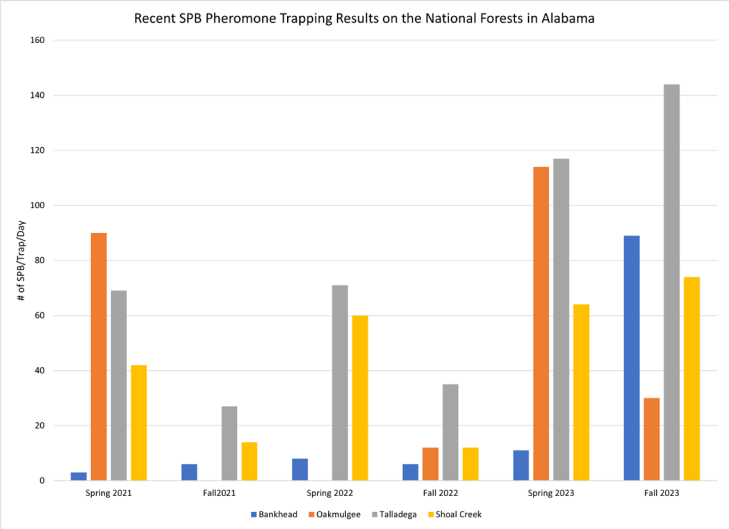


Figure 6. Recent SPB Pheromone Trapping Results on the National Forests in Alabama. Credit: Jim Meeker

In FY 2022 and 2023, SPB activity was detected on Bankhead, Talladega, Shoal Creek, and Oakmulgee. In 2023, 452 SPB spots had been detected. According to Forest Service Southern Region Forest Health Protection Unit, the southern pine beetle predictions are at a higher than severe outbreak level for Shoal Creek, a severe outbreak for Bankhead and Talladega, and an increasing or high level for Oakmulgee for 2024.

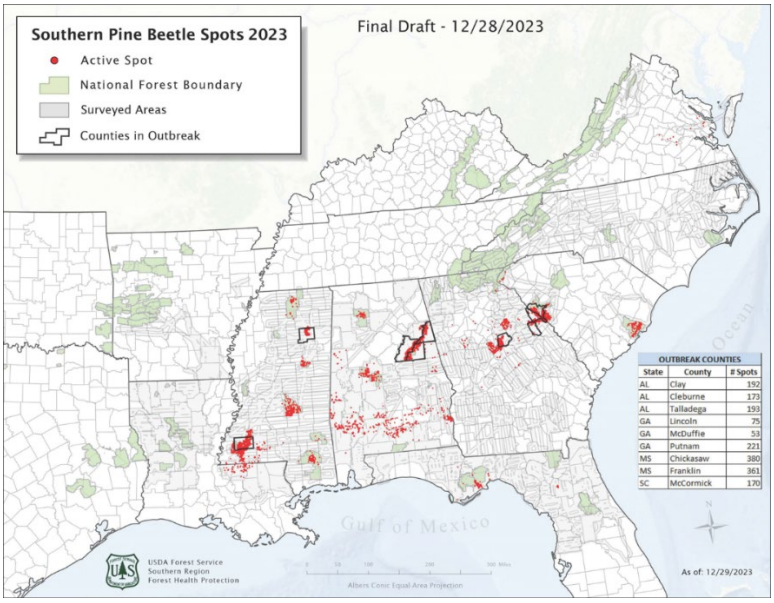


Figure 7. Southern Pine Beetle Spots 2023, National Forests in Alabama, Talladega and Shoal Creek Ranger Districts. Credit: Jim Meeker.

Hemlock Wooly Adelgid (HWA) presence is monitored annually at six locations on Bankhead. In 2023 monitoring was expanded through citizen science. No evidence of HWA has been documented on Bankhead to date.

Watersheds, Riparian Areas, Wetlands, Floodplains, and Soils

During the 2022-2023 period, 14 water monitoring sites were monitored on Tuskegee, Bankhead and Conecuh by partners. Parameters include bacteriological and water chemistry. Data and atypical values can be viewed here: Alabama Water Watch (auburn.edu). There were multiple sites with low total

alkalinity, one with low pH, one with high turbidity, and two with high E. coli. Low alkalinity values are natural for the geographic areas and not considered a sign of impairment. Read more about the partnership here.

Three new streams were added to the 303(d) listing by Alabama Department of Environmental Management within the NFsAL boundary, Hog Foot, Oakmulgee and Elam creeks. In 2022 the NFsAL treated 2,350 acres in the category of Soil and Water Improvement. In 2023, 4,092 acres were reported. Work was accomplished on Bankhead and included culvert and gate maintenance and replacement, illegal ATV control, erosion control, aquatic organism passage projects and feral pig control work. The Upper Tallasseehatchee Creek Watershed Restoration Action Plan on Talladega Ranger District was completed. A landslide occurred adjacent to the Tuskegee causing resource damage.

The Forest Service Enterprise Groundwater Team assessed groundwater dependent ecosystems (GDE) that support rush darter, an endangered Alabama endemic fish, on Bankhead in late summer, 2023. Twelve sites were visited, and 11 Level 1 GDE surveys were performed. Nine sites are rush darter sites. One site is a Price's Potato bean (federally threatened plant) and flame chub site. Another site is a cave spring site. Disturbances noted in the rush darter sites included wild pig damage, invasive plants, and channelization. Recommendations for further study include continuing temperature and water depth monitoring; visual recording to help define groundwater dependency by documenting surface water input; installing paired wells/staff gages at both spawning and non-spawning sites for rush darter; and an in-depth inventory of the flora and fauna at the cave spring site.

Figure 8. Biologists monitor Threatened Price's Potato Bean on Bankhead.

A discussion on road maintenance and erosion control funds associated with timber sales was part of a Shoal Creek review. A discussion of excessive rutting due to logging in wet periods (winter) due to recreation and visual impacts was part of the Bankhead review. Rutting was repaired following the timber harvesting. This lesson learned will be considered in future harvesting in and around recreation areas. A known issue discussed with Bankhead included needing more information from regional and Supervisor's office staff about non-traditional funding opportunities, as well as support for more WRAPs to position us for competing for watershed and roads funding and short-notice opportunities.

With the vacancies of hydrology and soil staff, there is a need for review of soils, hydrology, floodplain, wetland, and riparian resources during project planning and NEPA analyses.

Recommendations

Expand monitoring of rare communities and species. Continue prescribed burning and protection of sensitive sites. Continue active herbicide and feral pig control efforts.

Update Table 2.7 RCW Population Objectives in the Forest Plan to include FWS De-listing population goals as shown in this BMER (Table 2).

Collect data on and assess vegetation structure, composition, and age class distribution to determine if conditions are within desired range of variability.

Track and assess season of burn and fire return interval.

Physical scientists (hydrologist/soil scientist) are needed to ensure projects are in alignment with Executive Orders and Forest Plan standards and guidelines, in addition to Best Management Practices monitoring, Watershed Restoration Action Plans, Watershed Condition Framework and related soil and water programs.

Explore opportunities with the University of Alabama to continue the TEUI project on another District if funding allows.

Inquire with NRCS if any mapping updates have been completed on the Forests.

Continue volunteer water monitoring in consideration of atypical values associated with pH, turbidity and E. coli.

New projects need to consider management of riparian areas as per Forest Plan direction.

Effects of Management Activities to Protect, Maintain, or Restore Select Populations

Summary

The Forest Plan directs us to substantially contribute to the recovery of federally listed threatened and endangered species and provide for the conservation of Forest Service sensitive species. The Forest Plan provides both short and long-term recovery goals for the red-cockaded woodpecker (RCW) from the Revised Recovery Plan for the RCW. The NFsAL use twelve management indicator species (MIS) to monitor management effects on wildlife and availability of key terrestrial habitats.

Non-game birds selected as MIS are monitored using "The Southern National Forest's Migrant and Resident Landbird Conservation Strategy" (Gaines and Morris 1996). The NFsAL conducts annual surveys on about 300 points. Results from this on-going effort are here. Trends in songbirds selected as MIS from local data suggest forested riparian habitats are healthy and stable and xeric early seral and herbaceous understory abundance are expanding in select areas. RCW continue to increase. Bat monitoring on Bankhead confirms declines in cave associated species, including federally listed bats, after the arrival of white-nose syndrome. Indigo snakes on Conecuh increase through an on-going partnership repatriation program. An important game species, the Eastern wild turkey continues to decline throughout the southeast. Statewide turkey research projects are here.

Statewide information on hunting demand is here. County level information on deer harvest is here.

Monitoring Questions and Key Results

- 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 Terrestrial Habitats

The NFsAL Forest Plan selected 12 birds and game species as Management Indicator Species (MIS). Monitoring is conducted annually through breeding bird point count surveys and game harvest data. Prairie warbler detections for 2022-2023 were the highest in the past decade (234.5 birds per year), suggesting expansion in xeric early seral and scrub habitat components, associated with fire and other disturbance events. Northern bobwhite trends (from point count data as well as supplemental whistle count data) suggest the same expansion trends in these habitat components, as well as with herbaceous understory abundance.

While MIS trends suggest at least some stability in the key habitat components described above, stand inventory and NEPA analysis (for example in the recent Pinetucky analysis) indicate that some key habitat components, such as early successional forest, are still limited and are not being restored as quickly as the Forest Plan suggested.

Table 4. Detection trends of MIS birds over the past 10 years on NFsAL (Source: R8 Bird, Point Blue database)

Common Name	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Acadian Flycatcher	38	65	72	45	47	41	19	52	52	72	67
Brown-headed Nuthatch	31	24	17	33	28	20	20	13	33	47	39
Hooded Warbler	80	116	119	81	80	78	73	90	87	104	116
Northern Bobwhite	5	5	3	6	3	1	5	3	12	20	14
Pileated Woodpecker	13	21	27	18	31	23	18	22	30	27	21
Prairie Warbler	155	161	184	151	181	135	110	125	204	203	266
Scarlet Tanager	6	33	28	24	25	39	10	21	28	33	21
Swainson's Warbler	1	2	0	3	0	6	0	1	4	3	1
Wood Thrush	7	19	20	25	17	13	10	21	16	34	23

Status and Trends of Listed Species and Species with Viability Concerns

While monitoring of all Federally listed and Sensitive species has not occurred over the past two years, some species have received intense monitoring.

Another two years of successful Indigo snake restocking occurred on the Conecuh, with a total of 42 individuals released (25 in 2022 and 17 in 2023). In 2023, the Forest Service Washington Office awarded a $100,000 project to fund the Indigo Snake partnership between the NFsAL, Alabama Department of Conservation and Natural Resources (ADCNR), and the Central Florida Zoo. This project will increase capacity and build additional facilities to provide more snakes for release onto the Conecuh in future years. A larger number of individuals are planned for release in 2024.

Figure 9. Indigo snake shortly after being released into a burned pine stand on the Conecuh National Forest.

Table 5. Indigo snake release and recapture summary on the Conecuh National Forest.

Release year	Total number released	Number of recaptured individuals	Sex of recaptured snakes	Total number of recapture/observational events
2017	27	2	1 M, 1 F	4
2018	20	3	3 F	5
2019	15	5	5 F	12
2020	22	14	6 M, 8 F	29
2021	11	0	0	0
2022	25	3	3 F	5
2023	17	5	5 F	6

The 2022 Alabama Bat Blitz replicated the 2008 Blitz to compare the composition of the bat community after the arrival of WNS on Bankhead. Ten teams of biologists surveyed 29 sites, including both upland and riparian sites, pine, hardwood and mixed pine-hardwood forests, and caves. A total of 189 bats of five species were captured, including red, big brown, tricolored, evening, and Seminole bats. The impact of WNS on the Northern long-eared bat was especially evident with 101 caught in 2008, but none in 2022. Four tricolored bats were radio-tagged during the Bat Blitz and attempts were made to track the bats for approximately two weeks. One tricolored bat was successfully located on private land in Winston County.

In addition to the bat blitz, two caves on Bankhead that have been used as hibernacula for federally listed bats are monitored biannually. They were surveyed in February 2022. Declines in listed and proposed species continue to be documented in the hibernacula. The following tables display declines in bats in an important Bankhead hibernaculum.

Figure 10. Biologist affixes radio transmitter to a tricolored bat.

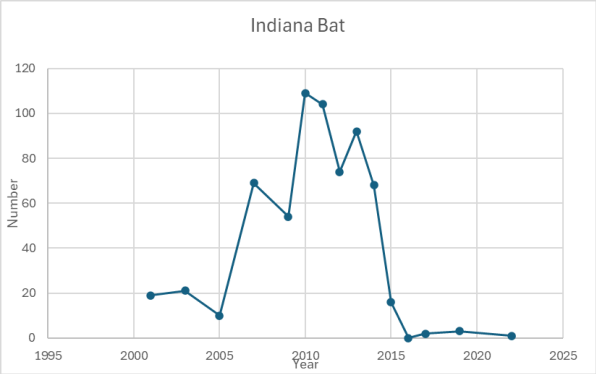


Figure 11. Indiana Bat Hibernaculum on Bankhead National Forest.

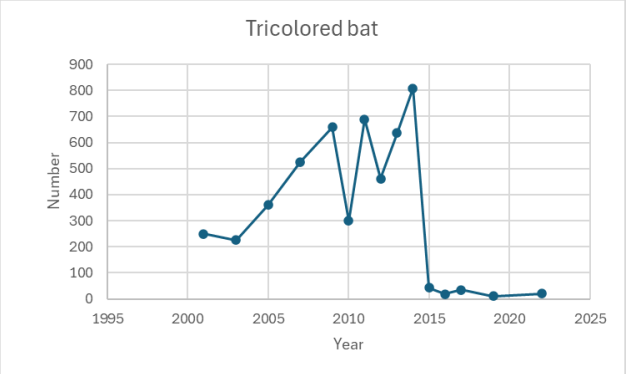


Figure 12. Tricolored Bat Hibernaculum on Bankhead National Forest.

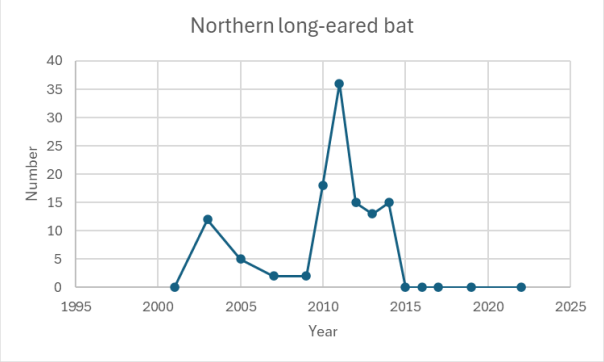


Figure 13. Northern Long-eared Bat Hibernaculum on Bankhead National Forest.

The Eastern spotted skunk camera trap survey by ADCNR Wildlife and Freshwater Fisheries documented spotted skunk in winter 2023 on Bankhead. Tennessee State University is conducting a herpetofauna project targeting Regional Forester's Sensitive Species green salamander and Northern Pine Snake.

Forest Service biologists and partners conducted surveys for aquatic species during the monitoring period. In 2022, blue shiner was documented at one historic collection site on Choccolocco Creek, but not at other sites surveyed. Rush darter persisted in known locations and physical habitat conditions remain unchanged outside of differences in annual precipitation amounts. Groundwater Dependent Ecosystem surveys associated with rush darter sites are included in the Status of Select Ecosystem Conditions section of this report. In 2022 and 2023, qualitative mussel surveys were conducted on eight stream reaches totaling 5.8 km in length. There were no detectible changes in mussel assemblages, distribution or physical habitat.

Figure 14.Blue Shiners from Choccolocco Creek, June 2022. Credit: Brandon Fair.

Trends for Demand Species

White-tailed deer harvest has been relatively stable over the past few years with several high scoring bucks being harvested each year, especially on the Black Warrior WMA of the Bankhead. Chronic Wasting Disease (CWD) was detected in January 2022 in a wild-harvested deer in northwest Alabama. Two more cases were found in the same area in the winter of 2023. No deer with CWD have been found on NFsAL lands to date.

Figure 15. Wild turkey poults hatching on the Shoal Creek District.

Wild turkey populations on NFsAL lands, like private lands across the state, have seen declines in the past 10 to 15 years. Although the specific reason for this trend is unknown, low hen and juvenile hen survival and recruitment have been documented across the southeast. This trend is a region-wide concern for land managers, researchers and hunters.

Low harvest numbers for Northern bobwhite continue to be observed on WMAs on NFsAL by ADCNR staff and from the state Game Check reporting system. However, bobwhite detections observed from R8 Bird spring point count surveys increased from an average of 7.5 birds per year in 2020-2021 to 17 birds per year in 2022-2023.

Special Forest Products Permits are another indication of use of demand species on NFsAL. Fifteen Free Use botanical permits were issued from the Supervisor's Office in 2022-2023, covering a wide variety of products ranging from taxonomic research (plant tissue for genetics research) to pollination partnership studies, to small quantity permits for fungi for personal consumption.

Recommendations

Consider incorporating snag data collection during common stand exams to indicate habitat availability for snag dependent species and listed bats.

Develop partnerships and seek funds to monitor federally listed and Regional Forester's Sensitive Species, including species of greatest conservation need identified in the Statewide Wildlife Action Plan.

See Table 15 for a summary of the recommendations, progress toward land management plan desired conditions and objectives, and recommended actions/next steps.

Visitor Use, Satisfaction, and Progress on Recreation Objectives

Summary

Monitoring visitor experiences and the condition of facilities helps gage the effectiveness in meeting this commitment. Visitors to these natural appearing settings will be able to choose from a wide variety of well-maintained nature-based recreation opportunities. Management is designed to meet the growing demands of dispersed recreation and to showcase high quality scenery maintained through low intensity, planned vegetation management activities.

Monitoring Questions and Key Results

- 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?

Recreation
Illegal cross country Off-Highway Vehicle (OHV) use is a continuing problem in certain areas of the Forest. The major impacts to the Forest are resource damage, soil erosion, and impacts to visitor safety. Recreation Specialists continue to see “user made” trails that are not designed properly and create potential safety hazards among visitors.

There were numerous additions to the quality of services at recreational areas across the NFsAL during this monitoring period. Recreational events are designed to enhance recreational experiences by providing various opportunities across the National Forest in Alabama. They also serve to mitigate the impacts of recreational activities on resources. Event permits are on the rise and appear to be trending upwards, with 29 reported in this period compared to 18 previously. See Appendix G.

Wilderness
Sipsey Wilderness continues to make improvements in visibility on the most impaired days while maintaining visibility on the clearest days since the last report. For the years of data collected (1993 – 2022), the average visual range has improved from 15 kilometers to 78 kilometers on the most impaired days. Since 1993, visibility improvements have been primarily from reductions in sulfur dioxide and nitrogen oxide emissions.

Figures 16 and 17 represent the best available data with high confidence in both the quality and quantity.

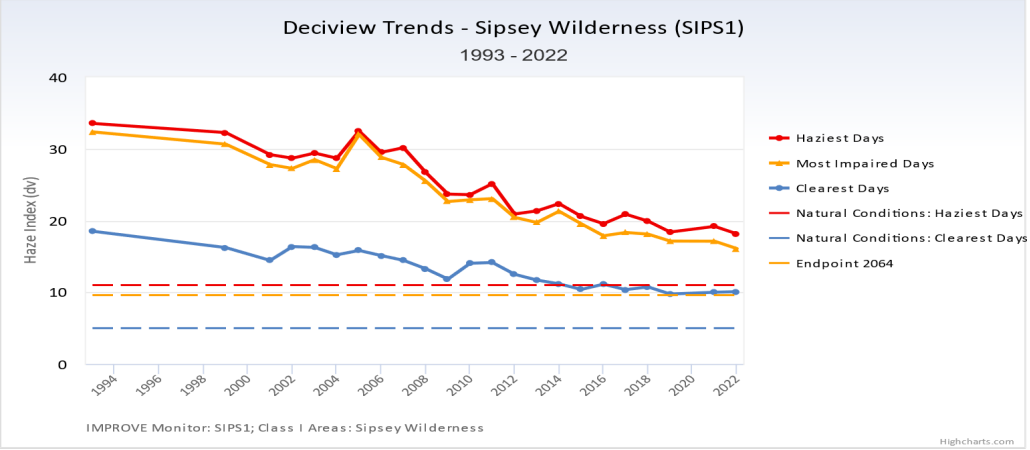


Figure 16. Deciview Trends for Sipsey Wilderness

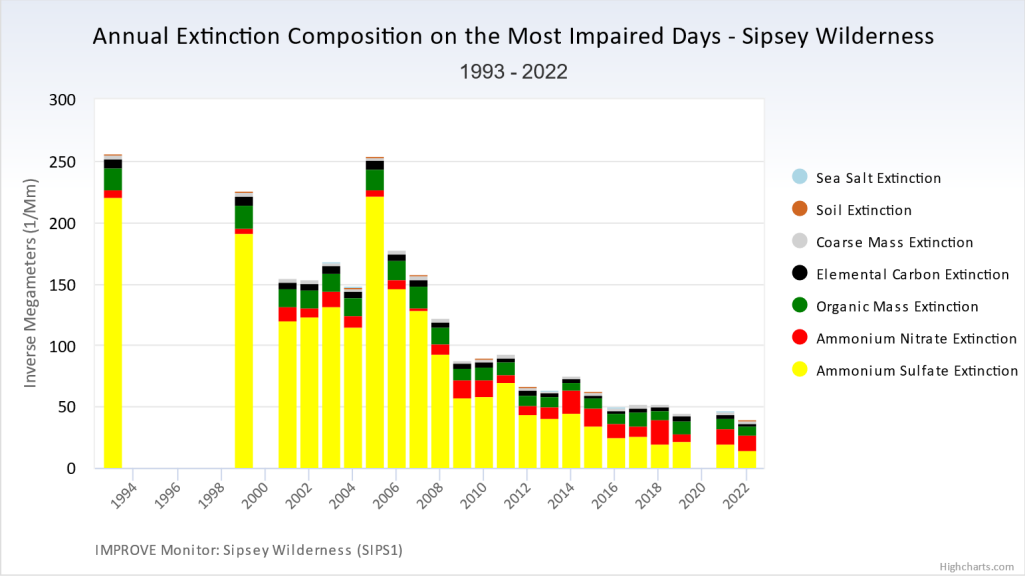


Figure 17. Annual Extinction Composition on the Most Impaired Days

Wildland fire (both natural and human starts as reported in IRWIN database) occurred on approximately 5,162 and 1,540 acres in 2022 and 2023, respectively. The total acreage burned in a wilderness area for both years is 1,134 acres. There were 8 wildfires interacting with treatments in FY 2023 for 281.43 acres. Currently Alabama is looking at developing a wilderness prescribed fire plan, along with developing Potential Operational Delineations (PODs) for unplanned wildland fire use in wilderness.

Wild Alabama continues to engage the public in stewardship activities across the three wilderness areas in Alabama: Sipsey, Cheaha and Dugger Mountain. Additional accomplishments completed by Wild Alabama: naturalized new fire rings annually, wilderness training and educational opportunities provided for volunteers and USFS staff multiple times throughout the year, taught and promoted Leave No Trace concepts, manually removed invasive species, wilderness character monitoring completed and signed by USFS line officers.

Scenic Integrity

The Recreational Operations and Maintenance Contract for the National Forests in Alabama was active during the reporting period. The contractor followed the contract and performance standards to a satisfactory level. This should allow recreational scenery across the National Forests in Alabama to remain consistent and provide quality settings for visitors.

Recommendations

Increase enforcement activities to curb illegal riding.

Climate Change and Other Stressors

Summary

The Forest Service stewards many of our nation's most treasured landscapes. Impacts from climate change, extreme weather, and other disturbances—along with changing human demands—challenge our ability to ensure that ecosystems are healthy, resilient, and more adaptable to changing conditions.

This monitoring category is comprised of three questions in response to the 2012 Planning Rule about how climate variability has changed, the influence of climate change on the plan area, and the 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 2020 "Broad-Scale Climate Change Monitoring Evaluation Report for the Southern Region" is here.

Monitoring Questions and Key Results

- 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 plans areas in the region?
- MQ 22. What effects do national forests in the region have on a changing climate?

There have been no new monitoring or changes since the last regional Broad-Scale monitoring report, as the reporting frequency for these climate questions are every 5 years. For more information, see the previous BMER or the "Broadscale-Scale Climate Change Monitoring Evaluation Report for the Southern Region." For the NFsAL, the potential threats and recommendations from those assessments are found in the project record.

Temperature - 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 storms and fire, are also expected to lead to changes in plant community composition.

Precipitation - 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 storms are leading to greater

erosion and more sedimentation in water. Effects from mesophication change community composition.

Carbon White Paper
The NFsAL Forest Carbon Assessment White Paper was prepared in 2023. The report will streamline the carbon analysis required in environmental analyses. However, it is difficult to judge how these factors and their interactions will affect future carbon dynamics on the NFsAL.

As new carbon data becomes available, these results will be updated in the carbon white paper and subsequently used in future project analyses as appropriate.

Recommendations

In the short-term, there is no need for change in the NFsAL Forest Plan direction, management activities or monitoring arising from this evaluation. The required monitoring questions, and associated indicators, should be added to the Forest Plan. Periodic evaluation (about five 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.

See Table 15 for a summary of the recommendations and progress.

Progress Toward Meeting Forest Plan and Objectives

Summary

The Forest Plan objectives and standards provide direction to enable the NFsAL to meet the goals of maintaining and improving vegetation management using silvicultural practices such as timber harvesting, site preparation, timber stand improvement, tree planting, and prescribed fire that are essential for reaching the desired ecological conditions. The Forest Plan Standards also provide guidance to administer a transportation system, minerals, and lands for multiple use objectives.

In FY 2023, the Natural Resources and Planning staff of the Supervisor's Office conducted an Integrated Resources Activity Review (IRAR) on the Bankhead Ranger District and Talladega Division. Talladega Division identified two timber sales to review that were near each other, which resulted in the review taking place on the Shoal Creek Ranger District of the Talladega Division with staff from both Districts participating in the IRAR.

Monitoring Questions and Key Results

- 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?

Timber, Vegetation and Prescribed Fire Activity

According to the Forest Service Activity Tracking System (FACTS) report, these monitoring results for the current period shows an upward trend in acres accomplished for vegetation and prescribed fire activities compared to the previous monitoring period in 2020 and 2021. The overall total acres accomplished in FY 2022 were 169,632 and in FY 2023 were 168,150. The number of acres accomplished decreased slightly by 1% in FY 2023. Table 6 presents a summary of acres of vegetation management treatments by activity to meet Forest Plan goals.

Table 6. Forest-wide Acres of Vegetation Management Treatments

Activity	Acres By Fiscal Year			
	FY 2020	FY 2021	FY 2022	FY 2023
Thinning	612	138	3,859	2,298
Midstory	N/A	N/A	460	1,209
Burning	92,184	152,946	145,629	135,312
NNIS Plants	1,436	1,173	1,385	992
NNIS Pigs	5,324	7,143	13,032	24,946
Tree Planting	1,297	849	930	452
Mowing – W/L opening maintenance	N/A	N/A	322	134
Site preparation	972	849	838	515
Timber Harvest – Regeneration	1,023	50	1,172	1,626
Release	1,475	703	2,005	666
Pre-commercial thinning	105	0	0	0

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. The thinning acres are higher than projected due to the ecological (SPB suppression, RCW habitat, longleaf restoration, woodland/savanna restoration, etc.) needs. Table 7 displays the timber volume sold outputs as reported in the database of record for the second period, in comparison to the projected outputs.

Table 7. Forest Plan Projected Timber Volumes and Harvested Acres for the Second 10-years Compared to Actual Timber Volumes Sold

	10 Years Projected – 2nd Period	FY2015-2019	FY 2020	FY 2021	FY 2022	FY 2023	Total	% of projected
Timber Volume Sold (Cubic Feet)	155,800,000	38,741,894	8,153,400	5,514,000	6,784,500	4,444,400	63,638,194	41%
Acres Thinned	18,425	19,174	612	138	3,859	2,298	26,081	141%
Acres Final Harvest	31,775	6,431	1,023	50	1,172	1,626	10,302	32%

Mineral Resource Development
The BLM and Conecuh National Forest are in the process of preparing a new Reasonably Foreseeable Development Scenario and oil and gas leasing availability analysis to address future demand for oil and gas exploration and/or development activity. During FY 2022 and FY 2023, no decisions were signed authorizing an Application for Permit to Drill (APD).

Landline Maintenance
The NFsAL landline rotation is on an 8-year schedule. Due to reduced budget and limited personnel, landlines and corners are repainted/maintained on a 35-year rotation. Approximately 40-70 miles are maintained annually and there are approximately 2,000 miles of landlines on the NFsAL.

Road Maintenance
Increase in costs of materials and services within the past few years caused a reduction in the funds available to cover the increase in deferred maintenance needs and annual maintenance needs. The increase from FY 2022 to FY 2023 in road maintenance was due to the ability to use Forest Service personnel and equipment to complete road maintenance work.

Table 8. Road Maintenance

Fiscal Year	Miles of Road Maintenance by Maintenance Level				TOTAL Miles
	2	3	4	5	
2022	257.3	205.0	102.0	0.0	564.3
2023	256.5	283.4	126.9	0.8	667.6

Integrated Resource Activity Review
The Bankhead and Talladega Division's timber, wildlife, and silviculture programs appear to be functioning in an efficient and effective way. During the review we saw consistency from the NEPA decision to sale preparation, to implementation on the ground. Some issues were noted with regards to the pesticide storage facility and corrective measures were recommended.

Challenges on the Bankhead included timing restrictions scheduled by the district (logging was only allowed November through February to minimize impacts and disturbance to recreational users) which caused wetter than desired logging periods in the thinning operation. Bankhead's harvest operations and planted longleaf seedlings (planted on 8'x8' spacing in 2022) looked good and there were open sunny conditions throughout the thinned stand consistent with desired future condition (DFC).

Talladega Division's harvest operations along transmission powerline rights-of-way (ROW) were discussed on the cumulative benefits of the recent timber sales on wildlife habitat and the fire program. Prairie warblers, an indicator species of early successional habitat, were detected in the Ivory Mountain area. This is an indication that the Forest Plan's goals and objectives are being met.

Project Decisions by Activity Purposes
In FY 2022 and FY 2023 there were 18 decisions by activity purposes accomplished. Of the 18 project activity purposes identified, multiple project purposes were mainly accomplished toward special use management (13), vegetation management ((12) other than forest products fuels management),

wildlife, fish, and rare plants (10), and timber products (9). In FY 2022 and FY 2023, a total of 31 decisions were signed. The number of decisions decreased by approximately 48% in FY 2023. See Figure 18 and Appendix A.

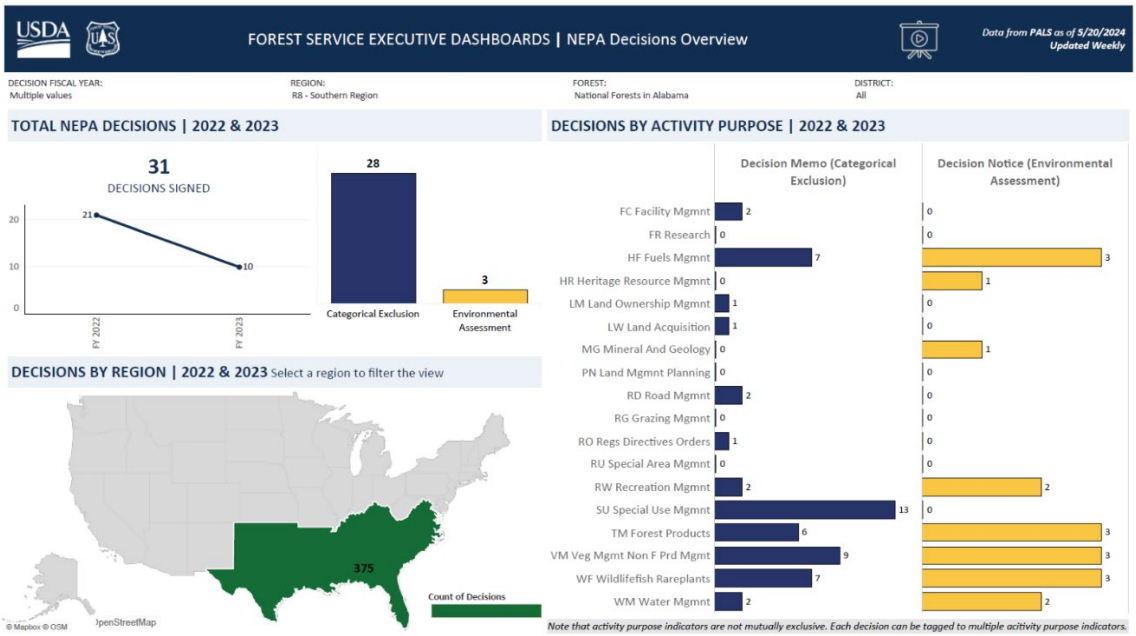


Figure 18. NEPA Decisions by Activity Purposes for 2022 and 2023.

Recommendations

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

MQ17 Increase acres of thinning and restoration harvesting in future planning periods to better reflect ecological need. Increase projected output fuel reduction prescribed fire acres in future planning periods to reflect the ecological need.

MQ19 Continue Forest Plan Amendment analysis process to reconsider the lands available for leasing as well as the stipulations that would apply.

See Table 15 for a summary of the recommendations, progress toward land management plan desired conditions and objectives, and recommended actions.

Effects of Management Systems Sustainability

Summary

The Forest Plan emphasizes the need to restore and maintain native longleaf forest, a mix of hardwood, hardwood-pine, and pine (including shortleaf and longleaf), and mountain longleaf pine forest communities in the region of Alabama. This is accomplished through intensive silvicultural activities

including, but not limited to, prescribed burning, mechanical and chemical vegetation control, even-aged, two-aged, and uneven-aged silvicultural methods.

The 1982 National Forest Management Act (NFMA) implementing regulations also require monitoring of specific silvicultural requirements. Silvicultural practices, harvest methods, harvest unit size, regeneration establishment, was evaluated and determined Forest Plan changes are needed. Annual field visits were conducted during the integrated resource activity review for Talladega and Bankhead NF. Each unit reported successful field surveys for 1st and 3rd survival and stocking exams for plantations planted for FY 2020 and FY 2022.

Monitoring Questions and Key Results

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

Vegetation Management – Regeneration
During project planning reviews, mitigation measures were identified to change the optimal regeneration treatment method to thinning treatments or completely dropping stands from the project due to the Forest Plan standard FW-51 to limit the maximum opening size to 80-acres for southern yellow pine in one harvest operation. Forest community types are limited to 80-acre regeneration cuts in southern yellow pine types and 40-acre in hardwood types designed to create an even-aged stand.

Regeneration is certified within five years based on the results of post-harvest stocking surveys funded on the sale area improvement plan. All planned activities and stocking data is recorded in the FACTS database. The number of seedlings planted per acre is recommended on an 8' x 8' spacing for 681 trees per acres, but can be variable.

Table 9. 2022 Planned Tree Planting Seedlings Order Needs

2022 Planned Tree Planting Seedlings Order Needs		
Longleaf seedlings		188,756
Shortleaf seedlings		162,000
TOTALS Seedlings		**350,956**

Table 10. 2023 Planned Tree Planting Seedlings Order Needs

2023 Planned Tree Planting Seedlings Order Needs		
Longleaf seedlings		390,213
Shortleaf seedlings		0
TOTALS Seedlings		**390,213**

First-year survival exams found 91.5 percent (2022) and 98.1 percent (2023) of the seedlings had survived (Table 11 and 13). Third-year stocking exams found a seedling survival rate of 83.2 percent (2022) and 92.1 percent (2023) (Table 12 and 14). Longleaf pine stands should have stocking of at least 400 trees per acre, while shortleaf pine stands should have stocking of at least 300 trees per acre. These results show adequate stocking levels have been met as directed by the Forest Plan standards.

Table 11. First Year Stocking & Survival Reports (2022)

Species	Total Acres Planted	Avg Trees Per Acre Planted	Survival Percent
Shortleaf Pine	116.0	681.0	89.5
Longleaf Pine	771.0	668.9	91.8
Total	**887.0**	**670.5**	**91.5**

Table 12. Third Year Stocking & Survival Reports (2022)

Species	Total Acres Planted	Avg Trees Per Acre Planted	Survival Percent
Shortleaf Pine	404.0	660.8	77.7
Longleaf Pine	1,140.0	667.6	85.1
Total	**1,544.0**	**665.8**	**83.2**

Table 13. First Year Stocking & Survival Reports (2023)

Species	Total Acres Planted	Avg Trees Per Acre Planted	Survival Percent
Shortleaf Pine	502.8	640.2	97.9
Longleaf Pine	71.2	681.1	99.6
Total	**574.0**	**645.2**	**98.1**

Table 14. Third Year Stocking & Survival Reports (2023)

Species	Total Acres Planted	Avg Trees Per Acre Planted	Survival Percent
Shortleaf Pine	301.0	683.1	89.8
Longleaf Pine	996.0	618.0	92.8
Total	**1297.0**	**633.1**	**92.1**

Recommendations

MQ 18. Forest Plan amendment to FW-51 is needed to increase the harvest openings maximum size limitation to more than 80 acres to help achieve desired ecological conditions where undesirable loblolly pine should be regenerated with desirable longleaf pine on suitable site types and soil conditions as directed by the Forest Plan.

Collect data on and assess vegetation structure, composition, and age class distribution to determine if conditions are within desired range of variability.

See Table 15 for a summary of the recommendations, progress toward land management plan desired conditions and objectives, and recommended actions.

Social, Economic, and Cultural Sustainability

Summary

The Forest Supervisor consults with the State Historic Preservation Office and federally recognized tribes/nations that have an interest in the NFsAL prior to a decision being made for implementation. All historic properties and archaeological sites that are eligible for inclusion to the National Register of Historic Places (NRHP) or may suffer an adverse effect from one of our undertakings are protected per 36 CFR Part 800 – Protection of Historic Properties. This protection usually takes the form of exclusion.

The following results are drawn from the Broad-Scale Socioeconomic Monitoring Evaluation Report for the Southern Region. This report is updated every five years and is unchanged from the previous BMER. New information evaluated for FY 2022-2023 includes Secure Rural School Act payments, contract obligations, and infrastructure projects and expenditures and are found in the project record.

Monitoring Questions and Key Results

- 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?

Cultural Resources
The NFsAL completes Section 106 field work and related reports via contracts, agreements and in-house in support of resource management activities. In FY 22, about 4,700 acres were surveyed with 16 historical properties recorded out of 43 archaeological sites recorded. In FY 23, about 9,200 acres were surveyed with ten historic properties located out of 25 archaeological sites recorded.

Four Priority Heritage Assets (PHA) were monitored during this BMER period. No new PHA's were added to the cultural resource database.

In 2022, NFsAL and the Chickasaw Nation participated in an ancestor reburial on a Ranger District.

Social, Cultural and Economic Conditions
Data from the Regional Broad-Scale Socioeconomic Monitoring Evaluation Report is updated in five-year increments. The most recent data from that report on unemployment, poverty, population change and expenditures is reported in the previous BMER and in the project record. It does not reflect current rates of unemployment, poverty or population in the counties surrounding the NFsAL. However, this is the most recent regional data available.

The communities around the NFsAL had the third highest unemployment rate in the southern region (region 8) at the date of the last regional report, 2016.

Secure Rural Schools Program payments to counties are above the regional average. Payments to counties for the NFsAL in FY 2022 and 2023 averaged $2.55/acre. A Resource Advisory Committee (RAC) is in place for NFsAL. The purpose of the committee is to improve collaborative relationships and to provide advice and recommendations to the Forest Service concerning projects and funding consistent with Title II of the Secure Rural Schools and Community Self-Determination Act. Minutes from RAC meetings are here. In FY 2023, four Secure Rural Schools projects were approved in Winston, Lawrence, Talladega and Clay counties.

There are six Great American Outdoors Act (GAOA) Legacy Restoration Funds projects approved for the NFsAL, for a total of $3.1 million dollars. There were 2 Bipartisan Infrastructure Law contract actions for $118,014 in FY 2023. There were two American Recovery and Reinvestment Act (ARRA) Capital Improvement & Maintenance projects approved in Alabama in FY 2022 for $862,773.

Recommendations

Engage Tribal/Nation Native American partners on consultation, not just as it concerns archaeological sites in relation to landscape management activities, but to all NFsAL activities.

Continue to utilize all available sources of funding to accomplish Forest Plan goals and objectives.

Consider questions or analysis to monitor effects to disadvantaged communities.

Consider re-wording or adding new indicators to address what factors the National Forests can influence regarding socioeconomics.

See Summary Table 15 which reflects the recommendations and progress.

Public Engagement

The NFsAL will share this report with partners, cooperators and the interested public using our mailing lists and by posting the report to our website. Our Partnership Coordinators LaToya Soto and Allison Cochran are points of contact for further information about monitoring efforts, results, and adaptive management responses. Feedback may be provided by contacting our Partnership Coordinators and by email at comments-southern-alabama@usda.gov.

Additional information is available at the following links:

Monitoring plan: Forest Plan Chapter 5, Monitoring Plan
Monitoring reports: Previous Biennial Monitoring and Evaluation Reports

Table 15 – Summary of Results and Recommendations

Table 15. National Forests in Alabama monitoring questions and evaluation addressed in this report. Possible types of recommendations include changes to the land management plan or monitoring plan, changes in management activities, or recommendations for a new focused assessment.

Monitoring question (MQ)	Progress Toward Land Management Plan Desired Conditions and Objectives	Recommended Actions/Next Steps
MQ 1. Are rare communities being protected, maintained, and restored?	While only a small percentage of rare communities were monitored during the report timeframe, it is believed that rare communities are being maintained through active forest management and treatments reported.	1 Changes to Forest Plan – No 2 Changes to Monitoring – Yes 3 Changes to Mgmt Activities – No 4 New Assessment Rec – No Expand monitoring of rare communities and occurrence records. Continue prescribed burning and protection of sensitive sites.
MQ 2. Are landscape-level and stand-level composition and structure of major forest communities within desirable ranges of variability?	Uncertain. 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.	1 Changes to Forest Plan – No 2 Changes to Monitoring – Uncertain 3 Changes to Mgmt Activities – Uncertain 4 New Assessment Rec – No
MQ 3. Are key successional stage habitats being provided?	Uncertain. Open, mature pine habitats are believed to be expanding slightly. Other successional habitats have not been restored to Plan levels.	1 Changes to Forest Plan – No 2 Changes to Monitoring – No 3 Changes to Mgmt Activities – No 4 New Assessment Rec – No Continue prescribed burning at current levels.

Monitoring question (MQ)	Progress Toward Land Management Plan Desired Conditions and Objectives	Recommended Actions/Next Steps
MQ 4. How well are key terrestrial habitat attributes being provided?	Uncertain. See MQ 2.	1 Changes to Forest Plan – No 2 Changes to Monitoring – Uncertain 3 Changes to Mgmt Activities – Uncertain 4 New Assessment Rec – No
MQ 5. What is the status and trend in aquatic habitat conditions in relationship to aquatic communities?	Uncertain for all communities or locations, however using fish IBI as an indicator for stream health and habitat conditions, the areas monitored in FY 22 and 23 are maintaining healthy aquatic communities and habitat conditions over time with the implementation of the Forest Plan.	1 Changes to Forest Plan – No 2 Changes to Monitoring – No 3 Changes to Mgmt Activities – No 4 New Assessment Rec – No
MQ 6. What are status and trends of forest health threats on the forest?	Thinning acreages are inadequate to address SPB outbreaks. SPB risk is moderate to high on some units. Regeneration harvests are below Forest Plan projections. Infestations of invasive plants are believed to be decreasing through active treatment. Feral pig infestations are thought to be stable to slightly decreasing through active trapping.	1 Changes to Forest Plan – No 2 Changes to Monitoring – No 3 Changes to Mgmt Activities – Yes 4 New Assessment Rec – No Continue aggressive herbicide and feral swine control efforts. Increase thinning and respond to SPB outbreaks. Increase restoration activities. Accelerate restoration.

Monitoring question (MQ)	Progress Toward Land Management Plan Desired Conditions and Objectives	Recommended Actions/Next Steps
MQ 7. What are the status and trends of federally listed species and species with viability concerns on the forest?	Aquatics - Uncertain for all communities or locations, however, the communities monitored using the NFsAL Forest Plan aquatic monitoring protocols in FY 22-23, are stable and maintaining healthy populations. Red-cockaded woodpeckers are increasing significantly. Listed *Myotis* bats are believed to occur at only a fraction of their historic populations were in Alabama. Indigo snakes are stable to increasing through releases. Other listed and sensitive plant and animal species are believed to be stable.	1 Changes to Forest Plan – No 2 Changes to Monitoring – No 3 Changes to Mgmt Activities – No 4 New Assessment Rec – No Update Forest Plan Table 2.7 to include RCW Population Objectives to include the FWS De-Listing Population Goal.
MQ 8. What are the trends for demand species and their use?	White-tailed deer are believed to be stable. Eastern wild turkeys are believed to be declining in Alabama as indicated by low female recruitment rates, however the cause is not understood.	1 Changes to Forest Plan – No 2 Changes to Monitoring – No 3 Changes to Mgmt Activities – No 4 New Assessment Rec – No Continue to support wild turkey research.
MQ 9. Are high quality, nature-based recreation experiences being provided and what are the trends?	Yes, recreation projects are designed to enhance and improve the recreation experience. Upward trend in special use permit request.	1 Changes to Forest Plan – No 2 Changes to Monitoring – No 3 Changes to Mgmt Activities – No 4 New Assessment Rec – No
MQ 10. What are the status and trends of recreation use impacts on the environment?	No, Major impacts to the Forest are resource damage, soil erosion, and impacts to visitor safety. User-made trails that are not designed properly and create potential confusion among visitors.	1 Changes to Forest Plan – No 2 Changes to Monitoring – No 3 Changes to Mgmt Activities – No 4 New Assessment Rec – No Increase enforcement activities to curb illegal riding.

Monitoring question (MQ)	Progress Toward Land Management Plan Desired Conditions and Objectives	Recommended Actions/Next Steps
MQ 11. What is the status and trend of wilderness character?	Yes, Sipsey Wilderness continues to make improvements in visibility on the most impaired. The average visual range has improved. Visibility impairment from nitrogen oxide emissions remains somewhat steady.	1 Changes to Forest Plan – No 2 Changes to Monitoring – No 3 Changes to Mgmt Activities – No 4 New Assessment Rec – No
MQ 12. What are the status and trends of Wild and Scenic River conditions?	Uncertain	1 Changes to Forest Plan – No 2 Changes to Monitoring – No 3 Changes to Mgmt Activities – No 4 New Assessment Rec – No
MQ 13. Are the scenery and recreation settings changing and why?	Yes, Scenery and recreation settings remain consistent. No change.	1 Changes to Forest Plan – No 2 Changes to Monitoring – No 3 Changes to Mgmt Activities – No 4 New Assessment Rec – No
MQ 14. Are heritage sites being protected?	Yes. Heritage surveys are being conducted and sites are being protected.	1 Changes to Forest Plan – No 2 Changes to Monitoring – No 3 Changes to Mgmt Activities – No 4 New Assessment Rec – No Address consultation with our Tribal partners
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?	Yes- Limited monitoring indicates Forest Plan intent is met.	1 Changes to Forest Plan – No 2 Changes to Monitoring – No 3 Changes to Mgmt Activities – Uncertain 4 New Assessment Rec – No Conduct monitoring.

Monitoring question (MQ)	Progress Toward Land Management Plan Desired Conditions and Objectives	Recommended Actions/Next Steps
MQ 16. What are the conditions and trends of riparian area, wetland and floodplain functions and values?	Uncertain.	1 Changes to Forest Plan – No 2 Changes to Monitoring – No 3 Changes to Mgmt Activities – Yes 4 New Assessment Rec – No New projects should consider management of riparian areas as per Forest Plan direction. Conduct monitoring.
MQ 17. How do actual outputs and services compare with projected?	Yes, Alabama Forest Service Activity Tracking System. FACTS data base results indicate that we are meeting objectives as planned.	1 Changes to Forest Plan – Yes 2 Changes to Monitoring – No 3 Changes to Mgmt Activities– No 4 New Assessment Rec – No Increase project acres for thinning treatments and fuel reduction prescribed fire.
MQ 18. Are silvicultural requirements of the Forest Plan being met?	Yes, the requirements are being met and tracked in the Forest Service Activity Tracking System (FACTS)	1 Changes to Forest Plan – Yes 2 Changes to Monitoring – No 3 Changes to Mgmt Activities– No 4 New Assessment Rec – No Forest Plan amendment is needed to increase the harvest openings maximize size limitation to help achieve desired ecological conditions where undesirable loblolly pine should be regenerated with desirable longleaf pine on suitable site types and soil conditions as directed by the Forest Plan.
MQ 19. 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)	1 Changes to Forest Plan – Yes 2 Changes to Monitoring – No 3 Changes to Mgmt Activities– No 4 New Assessment Rec – No Complete forest plan amendment analysis to determine lands available for leasing with stipulations. Update forest plan to align current goals with current output.

Monitoring question (MQ)	Progress Toward Land Management Plan Desired Conditions and Objectives	Recommended Actions/Next Steps
MQ 20. How has climate variability changed and how is it projected to change across the region?	No – Not addressed in Forest Plan Uncertain. Heat Stress and shifts in rainfall patterns will impact the growth of plant communities and increase flooding and drought events.	1 Changes to Forest Plan – Yes, add question 2 Changes to Monitoring – Yes, add indicators 3 Changes to Mgmt Activities– Uncertain 4 New Assessment Rec – No Update forest plan and monitoring.
MQ 21. How is climate variability and change influencing the ecological, social, and economic conditions and contributions provided by plans areas in the region?	No – Not addressed in Forest Plan Uncertain.	1 Changes to Forest Plan – Yes, add question 2 Changes to Monitoring – Yes, add indicators 3 Changes to Mgmt Activities– Uncertain 4 New Assessment Rec – No Update forest plan and monitoring.
MQ 22. What effects do national forests in the region have on a changing climate?	No – Not addressed in Forest Plan Uncertain.	1 Changes to Forest Plan – Yes, add question 2 Changes to Monitoring – Yes, add indicators 3 Changes to Mgmt Activities– Uncertain 4 New Assessment Rec – No Update forest plan and monitoring.
MQ 23. What changes are occurring in the social, cultural, and economic conditions in the areas influenced by national forests in the region?	No – Not addressed in Forest Plan. Uncertain.	1 Changes to Forest Plan – Yes, add question 2 Changes to Monitoring – Yes, add indicators 3 Changes to Mgmt Activities– Uncertain 4 New Assessment Rec – No Update forest plan and monitoring.

Appendix A Management Projects

Decision By Project Activity (Acres) 2022 and 2023			
Decision Name	**Project Activity**	**Acres**	**Decision Date**
FY 2023 Hazard Tree Removal along Highways and Powerlines	Forest vegetation improvements (FV)	30	08/28/2023
Wolf Pit Project	Forest vegetation improvements (FV)	1,120	10/19/2021
Compartment 109 Salvage Project	Forest vegetation improvements (FV)	250	07/14/2022
Compartment 123 Salvage Project	Forest vegetation improvements (FV)	250	07/14/2022
Oakmulgee Creek Restoration	Forest vegetation improvements (FV)	2,977	10/29/2021
Big Oak EA	Forest vegetation improvements (FV)	6,508	07/21/2023
Ivory Mountain White Fringed Orchid Restoration	Forest vegetation improvements (FV)	10	02/07/2022
Tuskegee NF Rx Burning FY23-FY28	Forest vegetation improvements (FV)	10,395	08/23/2022
Tuskegee Upland Pine Restoration Phase II Project	Forest vegetation improvements (FV)	483	10/01/2021
Total		**22,473**	
Compartment 109 Salvage Project	Fuel treatments (non-activity fuels) (FN)	250	07/14/2022
Compartment 123 Salvage Project	Fuel treatments (non-activity fuels) (FN)	250	07/14/2022
Compartment 24 Salvage Project	Fuel treatments (non-activity fuels) (FN)	250	05/26/2022
Compartment 5 Salvage Project	Fuel treatments (non-activity fuels) (FN)	250	05/26/2022
Tuskegee NF Rx Burning FY23-FY28	Fuel treatments (non-activity fuels) (FN)	10,395	08/23/2022
Total		**11,395**	

Oakmulgee Creek Restoration	Noxious weed treatments (NW)	2,977	10/29/2021
Big Oak EA	Noxious weed treatments (NW)	517	07/21/2023
Tuskegee Upland Pine Restoration Phase II Project	Noxious weed treatments (NW)	483	10/01/2021
Total		**3,977**	
Wolf Pit Project	Timber sales (green) (TS)	6,984	10/19/2021
Oakmulgee Creek Restoration	Timber sales (green) (TS)	2,435	10/29/2021
2019 East End HFRA DM	Timber sales (green) (TS)	1,857	01/24/2022
Tuskegee Upland Pine Restoration Phase II Project	Timber sales (green) (TS)	1,387	10/01/2021
Total		**12,666**	
FY 2023 Hazard Tree Removal along Highways and Powerlines	Timber sales (salvage) (SS)	30	08/28/2023
Compartment 109 Salvage Project	Timber sales (salvage) (SS)	250	07/14/2022
Compartment 123 Salvage Project	Timber sales (salvage) (SS)	250	07/14/2022
Compartment 24 Salvage Project	Timber sales (salvage) (SS)	250	05/26/2022
Compartment 5 Salvage Project	Timber sales (salvage) (SS)	250	05/26/2022
Oakmulgee Creek Restoration	Timber sales (salvage) (SS)	542	10/29/2021
Total		**18,563**	

Appendix B Game Harvest Summary

Table 16. Number of harvested deer reported by Alabama Department of Conservation and Natural Resources NFsAL – for NF by county, for WMA by county, and total (NF and WMA combined) by county.

NF	County	2021-22 Season			2022-23 Season		
		Bucks	Does	Total	Bucks	Does	Total
Bankhead National Forest	Franklin	1	0	1	1	0	1
	Lawrence	31	12	43	16	1	17
	Winston	90	40	130	64	57	121
Conecuh National Forest	Covington	41	23	64	40	6	46
	Escambia	36	27	63	40	21	61
Talladega National Forest	Calhoun	17	3	20	8	1	9
	Cleburne	29	3	32	26	5	31
	Clay	10	3	13	19	4	23
	Talladega	43	7	50	14	4	18
	Bibb	45	14	59	43	21	64
	Chilton	37	10	47	20	12	32
	Dallas	4	2	6	1	0	1
	Hale	0	0	0	14	4	18
	Perry	23	6	29	21	4	25
	Tuscaloosa	10	2	12	13	6	19
Tuskegee National Forest	Macon	33	12	45	40	12	52
Totals		**450**	**164**	**614**	**380**	**158**	**538**

NF - WMA	County	2021-22 Season			2022-23 Season		
		Bucks	Does	Total	Bucks	Does	Total
Black Warrior	Lawrence	60	15	75	36	27	63
	Winston	37	14	51	24	19	43
Blue Spring	Covington	68	20	88	68	30	98
Boggy Hollow	Covington	14	14	28	5	12	17
	Escambia	0	0	0	1	5	6
Choccolocco	Calhoun	41	13	54	32	14	46
	Cleburne	95	22	117	70	32	102
Hollins	Clay	44	23	67	30	9	39
	Talladega	61	5	66	14	4	18

Oakmulgee	Bibb	42	41	83	92	58	150
	Hale	48	33	81	78	45	123
	Perry	4	8	12	4	1	5
	Tuscaloosa	9	7	16	3	6	9
Totals		**523**	**215**	**738**	**457**	**262**	**719**
NF - Total	**County**	**2021-22 Season**			**2022-23 Season**		
		Bucks	**Does**	**Total**	**Bucks**	**Does**	**Total**
Bankhead National Forest	Franklin	1	0	1	1	0	1
	Lawrence	91	27	118	52	28	80
	Winston	127	54	181	88	76	164
Conecuh National Forest	Covington	123	57	180	113	48	161
	Escambia	36	27	63	41	26	67
Talladega National Forest	Calhoun	58	16	74	40	15	55
	Cleburne	124	25	149	96	37	133
	Clay	54	26	80	49	13	62
	Talladega	104	12	116	28	8	36
	Bibb	87	55	142	135	79	214
	Chilton	37	10	47	20	12	32
	Dallas	4	2	6	1	0	1
	Hale	48	33	81	92	49	141
	Perry	27	14	41	25	5	30
	Tuscaloosa	19	9	28	16	12	28
Tuskegee National Forest	Macon	33	12	45	40	12	52
Totals		**973**	**379**	**1,352**	**837**	**420**	**1,257**

Table 17. Number of harvested turkey reported by Alabama Department of Conservation and Natural Resources for the NFsAL – for NF by county, for WMA by county, and total (NF and WMA combined) by county.

NF	County	2021-22 Season			2022-23 Season		
		Jakes	**Adults**	**Total**	**Jakes**	**Adults**	**Total**
Bankhead National Forest	Franklin	0	1	1	0	0	0
	Lawrence	0	8	8	0	7	7
	Winston	1	22	23	2	12	14
Conecuh National Forest	Covington	2	4	6	0	3	3
	Escambia	0	1	1	0	3	3
Talladega National Forest	Calhoun	0	10	10	1	11	12
	Cleburne	0	27	27	0	17	17
	Clay	2	12	14	1	8	9
	Talladega	3	21	24	1	10	11
	Bibb	1	3	4	0	5	5
	Chilton	2	10	12	0	10	10
	Dallas	0	0	0	0	0	0
	Hale	0	0	0	0	3	3
	Perry	0	6	6	0	12	12
	Tuscaloosa	0	1	1	0	0	0
Tuskegee National Forest	Macon	2	4	6	1	2	3
Totals		**13**	**130**	**143**	**6**	**103**	**109**

NF - WMA	County	2021-22 Season			2022-23 Season		
		Jakes	Adults	Total	Jakes	Adults	Total
Black Warrior	Lawrence	0	25	25	4	27	31
	Winston	1	20	21	0	19	19
Blue Spring	Covington	1	10	11	2	11	13
Boggy Hollow	Covington	0	5	5	0	1	1
	Escambia	0	0	0	0	0	0
Choccolocco	Calhoun	2	17	19	2	23	25
	Cleburne	2	21	23	2	36	38
Hollins	Clay	4	16	20	0	25	25
	Talladega	0	4	4	0	7	7
Oakmulgee	Bibb	0	2	2	0	11	11
	Hale	1	8	9	1	11	12
	Perry	0	1	1	0	0	0

	Tuscaloosa	0	3	3	0	1	1
Totals		**11**	**132**	**143**	**11**	**172**	**183**
NF - Total	**County**	**2021-22 Season**			**2022-23 Season**		
		Jakes	Adults	Total	Jakes	Adults	Total
Bankhead National Forest	Franklin	0	1	1	0	0	0
	Lawrence	0	33	33	4	34	38
	Winston	2	42	44	2	31	33
Conecuh National Forest	Covington	3	19	22	2	15	17
	Escambia	0	1	1	0	3	3
Talladega National Forest	Calhoun	2	27	29	3	34	37
	Cleburne	2	48	50	2	53	55
	Clay	6	28	34	1	33	34
	Talladega	3	25	28	1	17	18
	Bibb	1	5	6	0	16	16
	Chilton	2	10	12	0	10	10
	Dallas	0	0	0	0	0	0
	Hale	1	8	9	1	14	15
	Perry	0	7	7	0	12	12
	Tuscaloosa	0	4	4	0	1	1
Tuskegee National Forest	Macon	2	4	6	1	2	3
Totals		**24**	**262**	**286**	**17**	**275**	**292**

Appendix C Contributors and Partners

Contributors

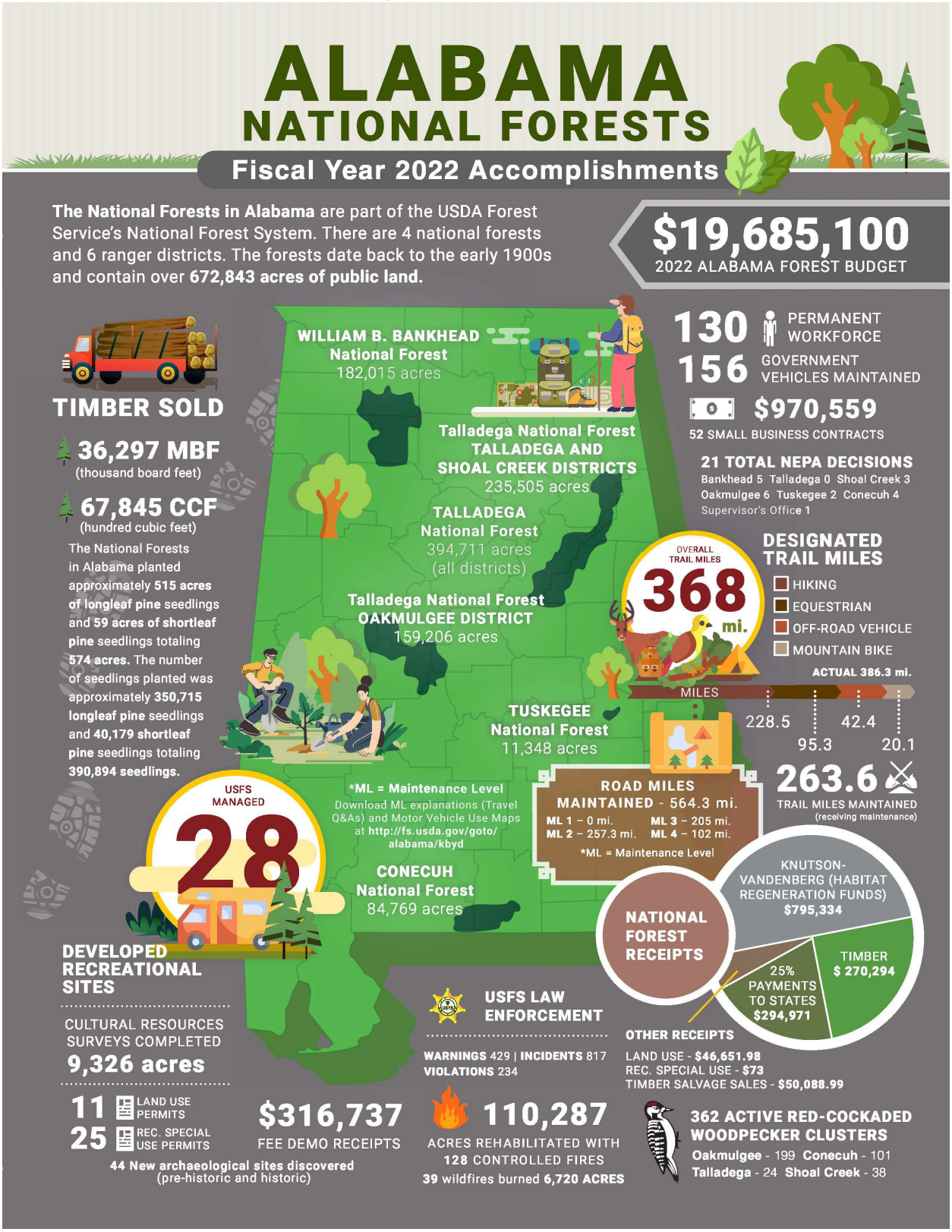
Resource Specialist	Role
LaToya Soto	Biennial Monitoring & Evaluation Report Coordinator
Allison Cochran	Biennial Monitoring & Evaluation Report Coordinator
Dagmar Thurmond	Natural Resources and Planning Staff Officer
Ryan Shurette	Forest Biologist
John Moran	Forest Fisheries Biologist
Geoffrey Holden	Regional Natural Resources Manager (NRM) Program Manager, Resources Information Management
Aaron Radford	Acting Forest Fire Planner
Scott Turner	Forest Fire Planner
Marcus Ridley	Forest Archaeologist
Daks Kennedy	Recreation, Engineering, Lands, Heritage, and Minerals Staff Officer
Estella Smith	Soil Scientist
Lisbeth Ruiz	NRM Program Specialist
Jacob Deal	Regional Air Resource Specialist
Eugene Brooks	Forest Silviculturist
Brian Waldrep	Forest Timber Contracting Officer

Partners

Forest partners include, but are not limited to, the following:

Alabama A&M University	Geological Survey of Alabama
Alabama Department of Conservation and Natural Resources	Jena Band of Choctaw Indians
Alabama Department of Environmental Management	Poarch Band of Creek Indians
Alabama Forestry Commission	Southern Research Station
Alabama Power Company	State Historic Preservation Office
Alabama Rivers and Streams Network	Tennessee State University
Alabama Water Watch	The Longleaf Alliance
Alabama-Quassarte Tribal Town	The Muscogee (Creek) Nation
Auburn University	The Nature Conservancy
Chickasaw Nation	University of Alabama
Choctaw Nation	US Fish and Wildlife Service
Eastern Band of Cherokee Indians	Wild Alabama

Appendix D Infographics - Accomplishments



ALABAMA NATIONAL FORESTS

Fiscal Year 2023 Accomplishments

The National Forests in Alabama are part of the USDA Forest Service's National Forest System. There are 4 national forests and 6 ranger districts. The forests date back to the early 1900s and contain over **673,109 acres of public land.**

$24,041,620
2023 ALABAMA FOREST BUDGET

TIMBER SOLD

24,244 MBF
(thousand board feet)

44,444 CCF
(hundred cubic feet)

The National Forests in Alabama **planted 873 Acres of Longleaf pine seedlings** and **137 Acres of shortleaf pine seedlings** for a total **1,010 Acres**. The number of seedlings planted were as follow **594,513 longleaf pine seedlings** and **93, 297 shortleaf pine seedlings** for a total of **687, 810 seedlings.**

CULTURAL RESOURCES SURVEYS COMPLETED
10,536 acres

08 LAND USE PERMITS
09 REC. SPECIAL USE PERMITS

Collected **$1,285.19 in Recreation Special Use Fees**

Collected **$26,876.33 in Land Use Fees** for a **total of $28,161.52.**

44 New archaeological sites DISCOVERED
(pre-historic and historic)

WILLIAM B. BANKHEAD National Forest
182,015 acres

Talladega National Forest TALLADEGA AND SHOAL CREEK DISTRICTS
235,505 acres

TALLADEGA National Forest
394,709 acres
(all districts)

Talladega National Forest OAKMULGEE DISTRICT
159,206 acres

TUSKEGEE National Forest
11,347 acres

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

CONECUH National Forest
85,037 acres

160 PERMANENT WORKFORCE
165 GOV. VEHICLES MAINTAINED

$3,429,295
112 SMALL BUSINESS CONTRACTS

10 TOTAL NEPA DECISIONS
Bankhead - 4 Talladega - 1 Shoal Creek - 1
Oakmulgee 0 Tuskegee - 1 Conecuh - 3
Supervisor's Office - 0

DESIGNATED TRAIL MILES

OVERALL TRAIL MILES **535** mi.

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

ACTUAL 535.6 mi.

TRAIL MILES: 374.2 | 107.1 | 39.4 | 14.6

262.7
TRAIL MILES MAINTAINED
(receiving maintenance)

ROAD MILES MAINTAINED - 667.6 mi.
ML 1 – 0 mi. **ML 3** – 283.4 mi.
ML 2 – 256.5 mi. **ML 4** – 126.9 mi.
ML 5 – 0.8 mi.
*ML = Maintenance Level

NATIONAL FOREST RECEIPTS

- KNUTSON-VANDENBERG (HABITAT REGENERATION FUNDS) **$1,310,688**
- TIMBER **$ 22,201**
- 25% PAYMENTS TO STATES **$386,051**

OTHER RECEIPTS
LAND USE - **$40,748**
REC. SPECIAL USE - **$98**
TIMBER SALVAGE SALES - **$0**

USFS DEVELOPED RECREATIONAL SITES
28

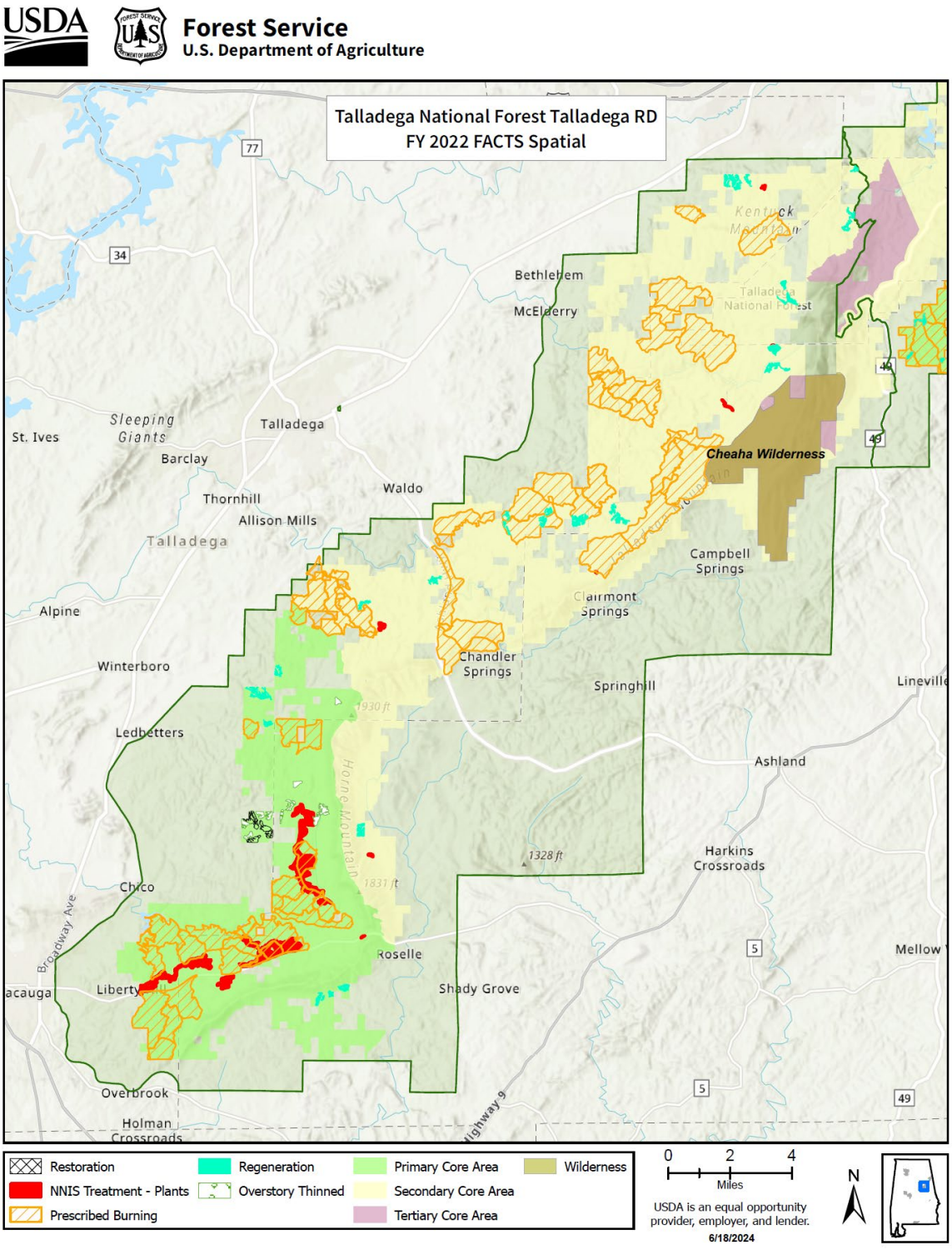
$275,000
FEE DEMO RECEIPTS

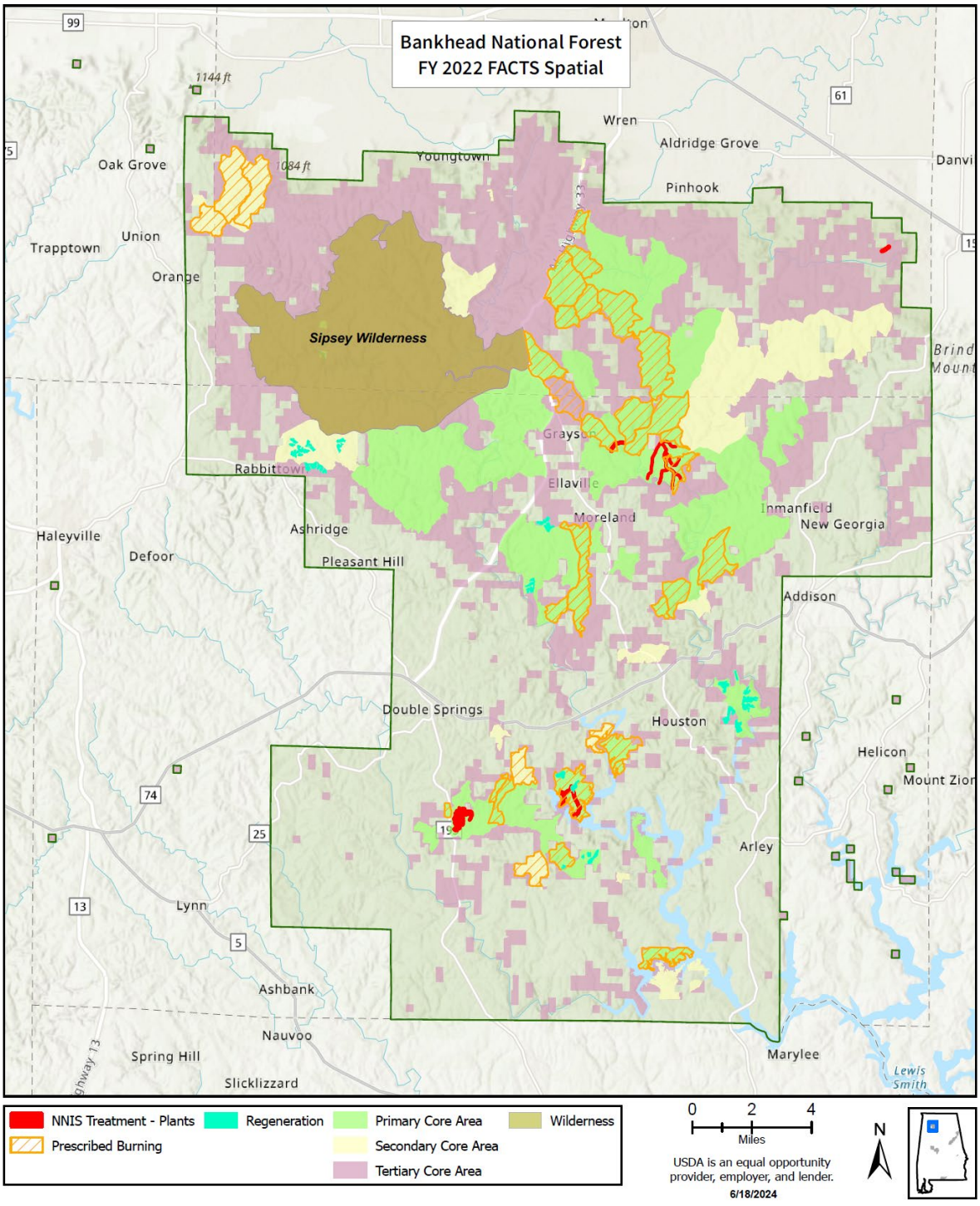
USFS LAW ENFORCEMENT
WARNINGS 255 | **INCIDENTS** 685
VIOLATIONS 94

131,199
ACRES REHABILITATED WITH **151** CONTROLLED FIRES
23 wildfires burned **2,585 ACRES**

399 ACTIVE RED-COCKADED WOODPECKER CLUSTERS
Oakmulgee - 211 **Conecuh** - 107
Talladega - 35 **Shoal Creek** - 46
Tuskegee - 0 **Bankhead** - 0

Appendix E Maps of Ecosystem Restoration and Maintenance Activities




USDA
Forest Service
U.S. Department of Agriculture
Bankhead National Forest
FY 2022 FACTS Spatial
Sipsey Wilderness
Oak Grove
Trapptown
Union
Orange
Youngtown
Wren
Aldridge Grove
Pinhook
Danvi
Rabbittown
Grayson
Ellaville
Moreland
Inmanfield
New Georgia
Haleyville
Defoor
Ashridge
Pleasant Hill
Addison
Double Springs
Houston
Helicon
Mount Zion
Arley
Lynn
Ashbank
Nauvoo
Spring Hill
Slicklizzard
Marylee
Lewis Smith
1144 ft
1084 ft
99
61
74
25
13
5
NNIS Treatment - Plants
Prescribed Burning
Regeneration
Primary Core Area
Secondary Core Area
Tertiary Core Area
Wilderness
0 2 4
Miles
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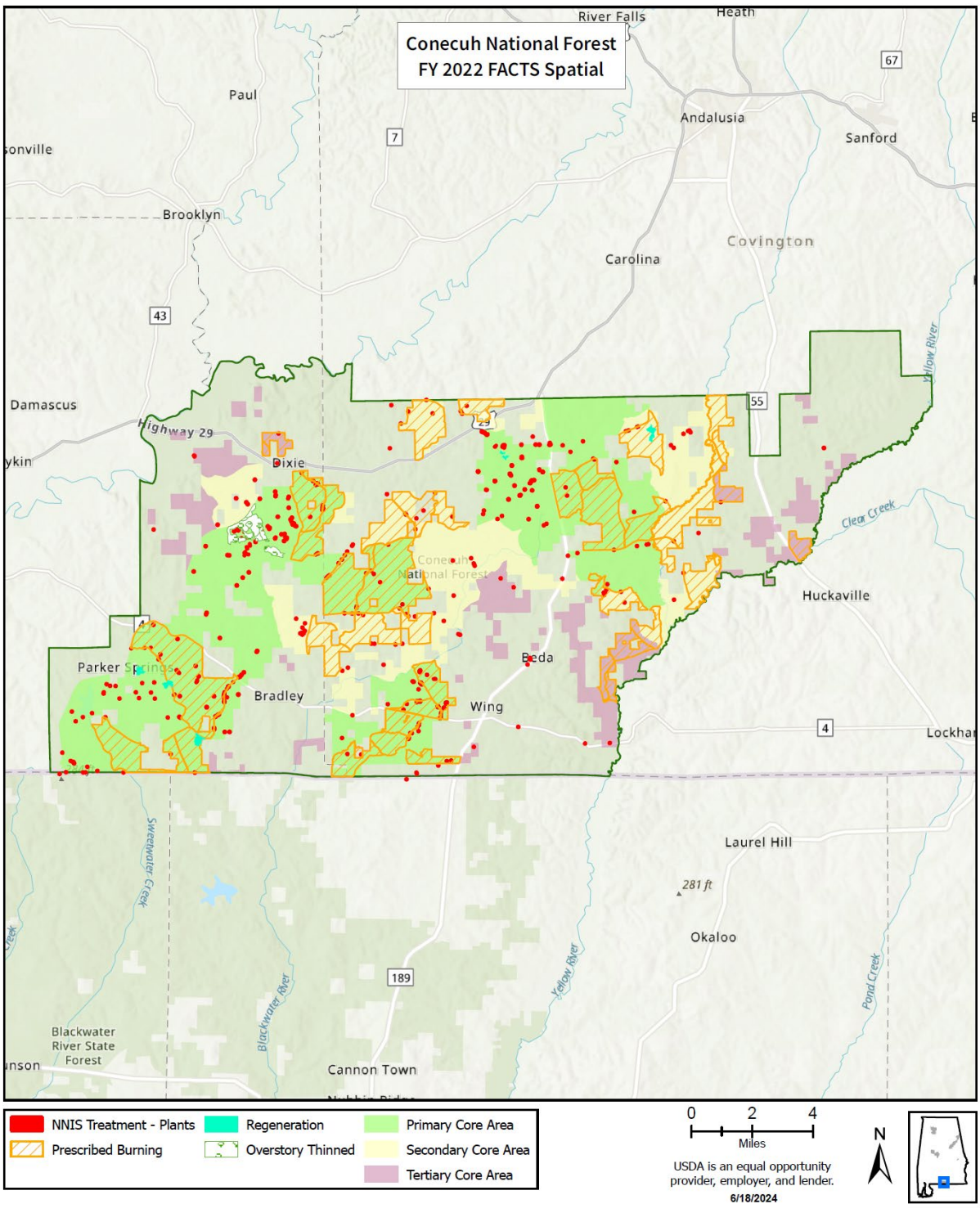
6/18/2024
N


USDA
Forest Service
U.S. Department of Agriculture
Conecuh National Forest
FY 2022 FACTS Spatial
River Falls
Heath
Paul
Andalusia
Sanford
Brooklyn
Covington
Carolina
Damascus
Highway 29
Dixie
Clear Creek
Huckaville
Parker Springs
Bradley
Beda
Wing
Laurel Hill
281 ft
Okaloo
Sweetwater Creek
Blackwater River
Yellow River
Pond Creek
Blackwater River State Forest
Cannon Town
NNIS Treatment - Plants
Prescribed Burning
Regeneration
Overstory Thinned
Primary Core Area
Secondary Core Area
Tertiary Core Area
0 2 4
Miles
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6/18/2024
N

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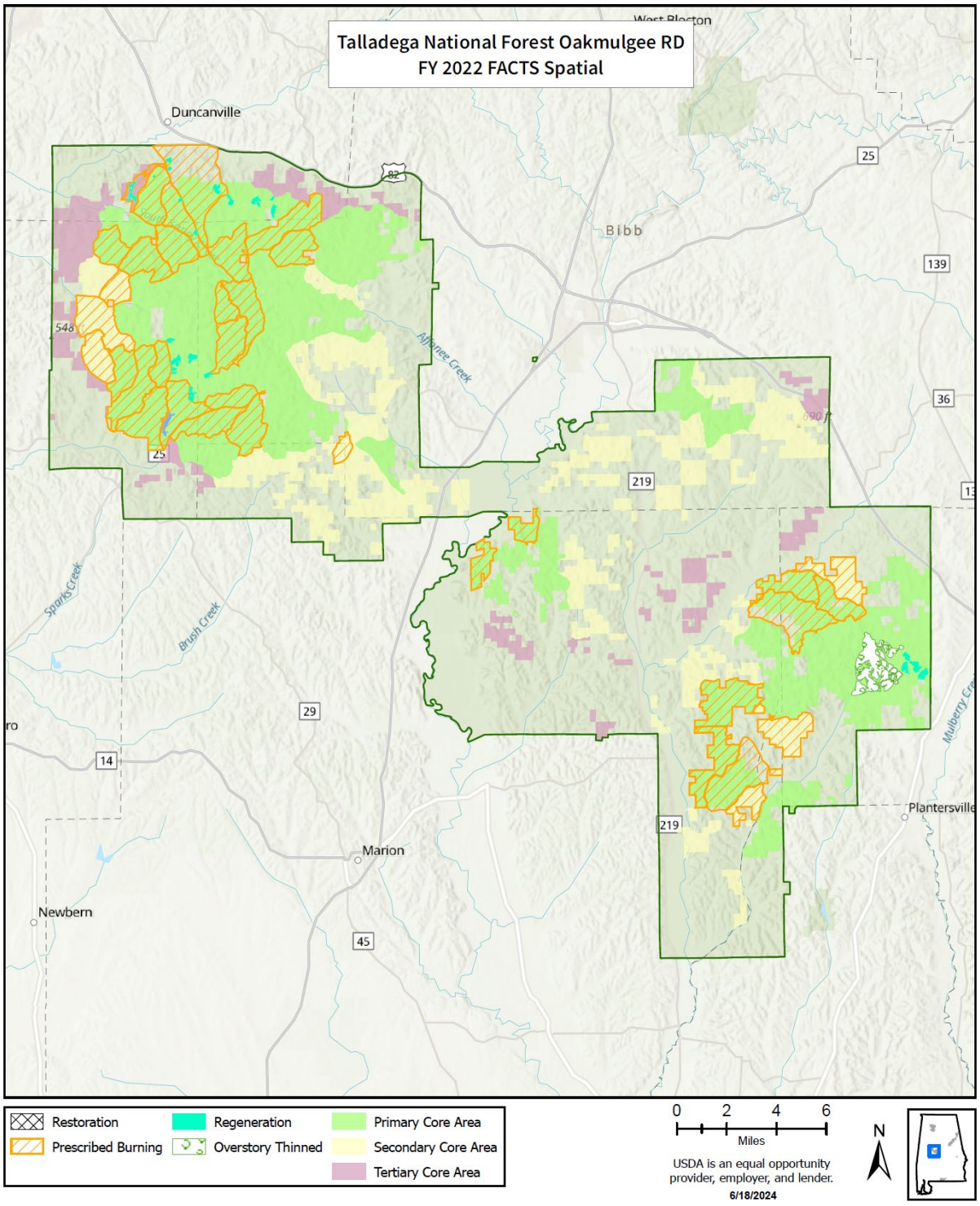

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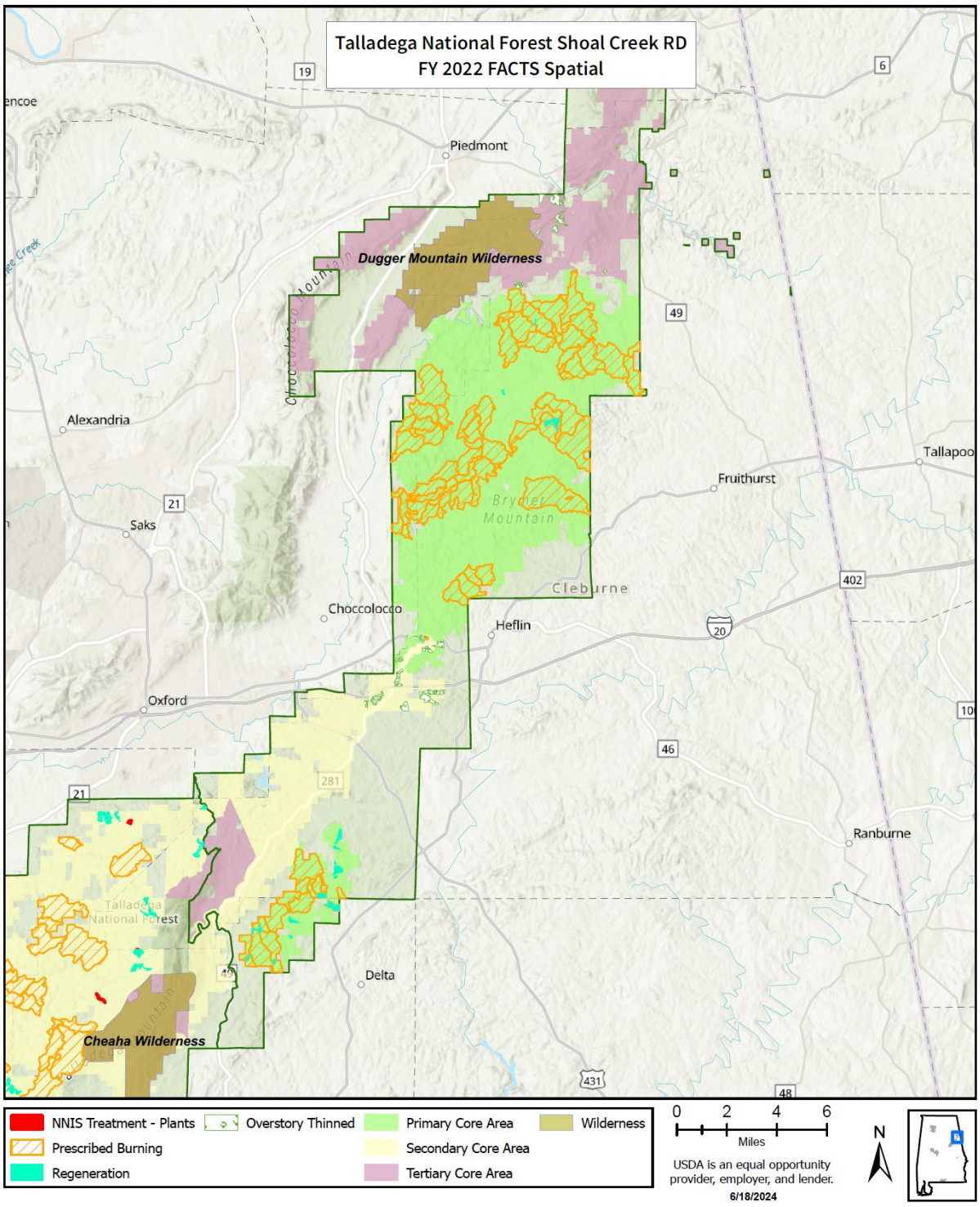

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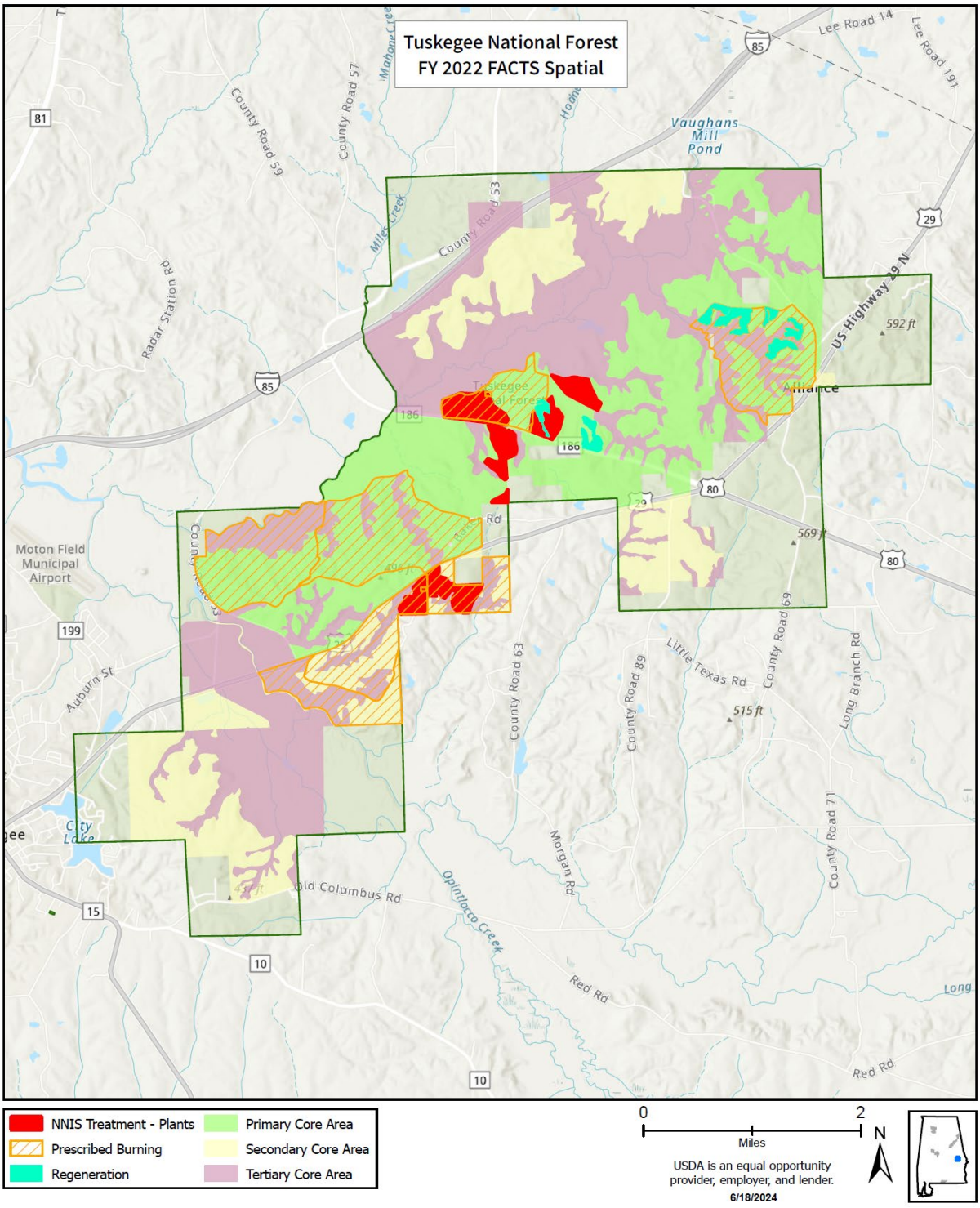

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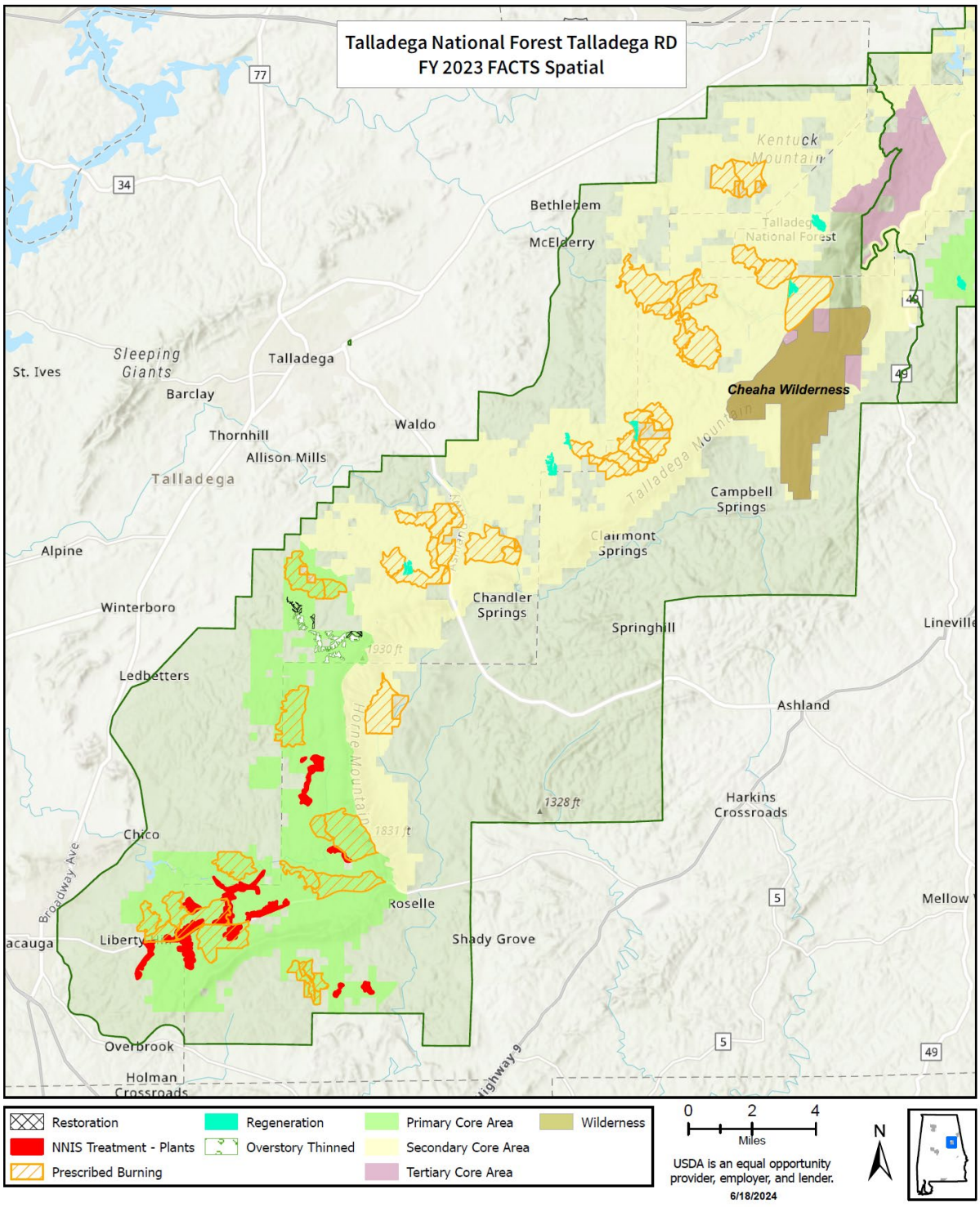

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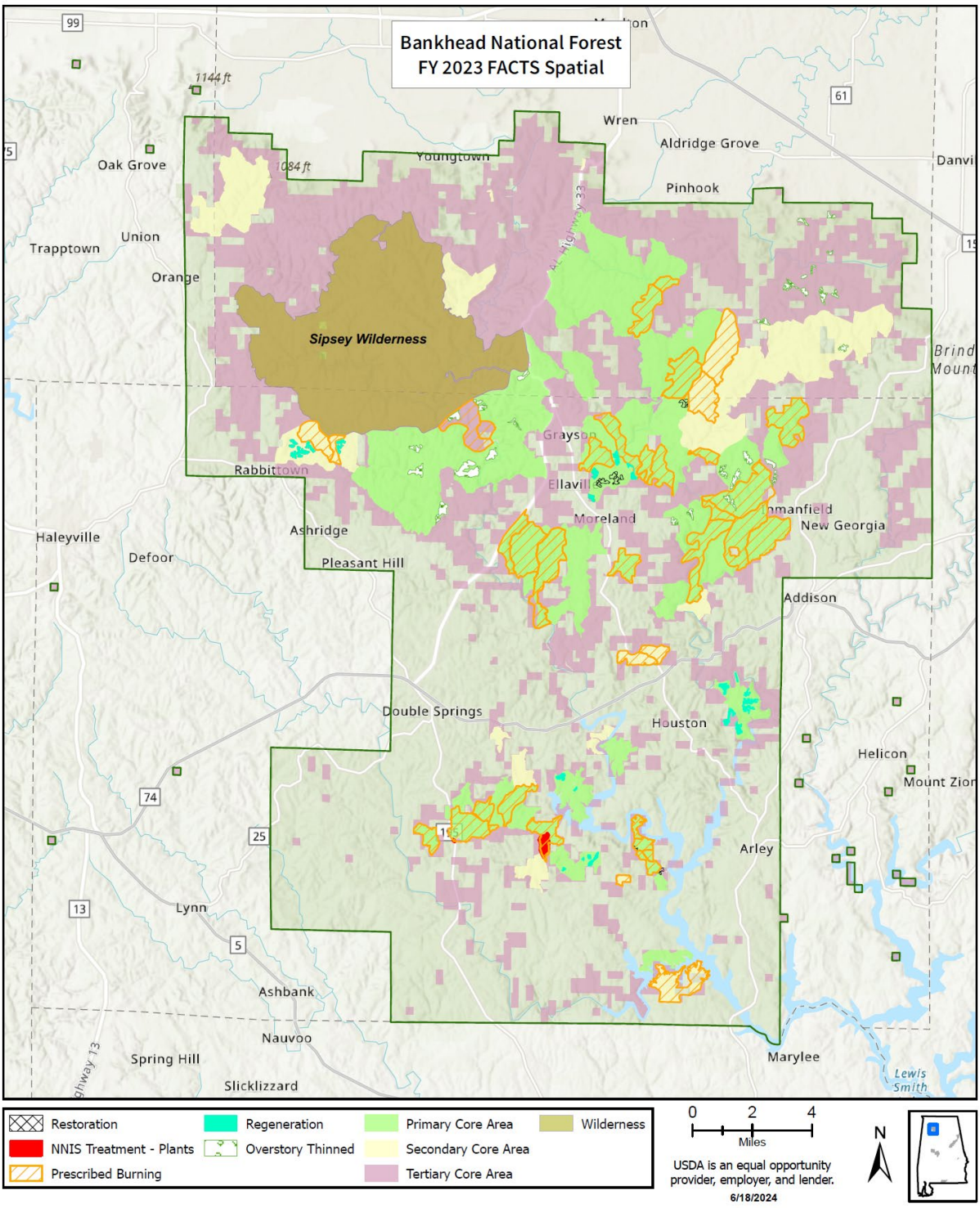
6/18/2024

Forest Service
U.S. Department of Agriculture



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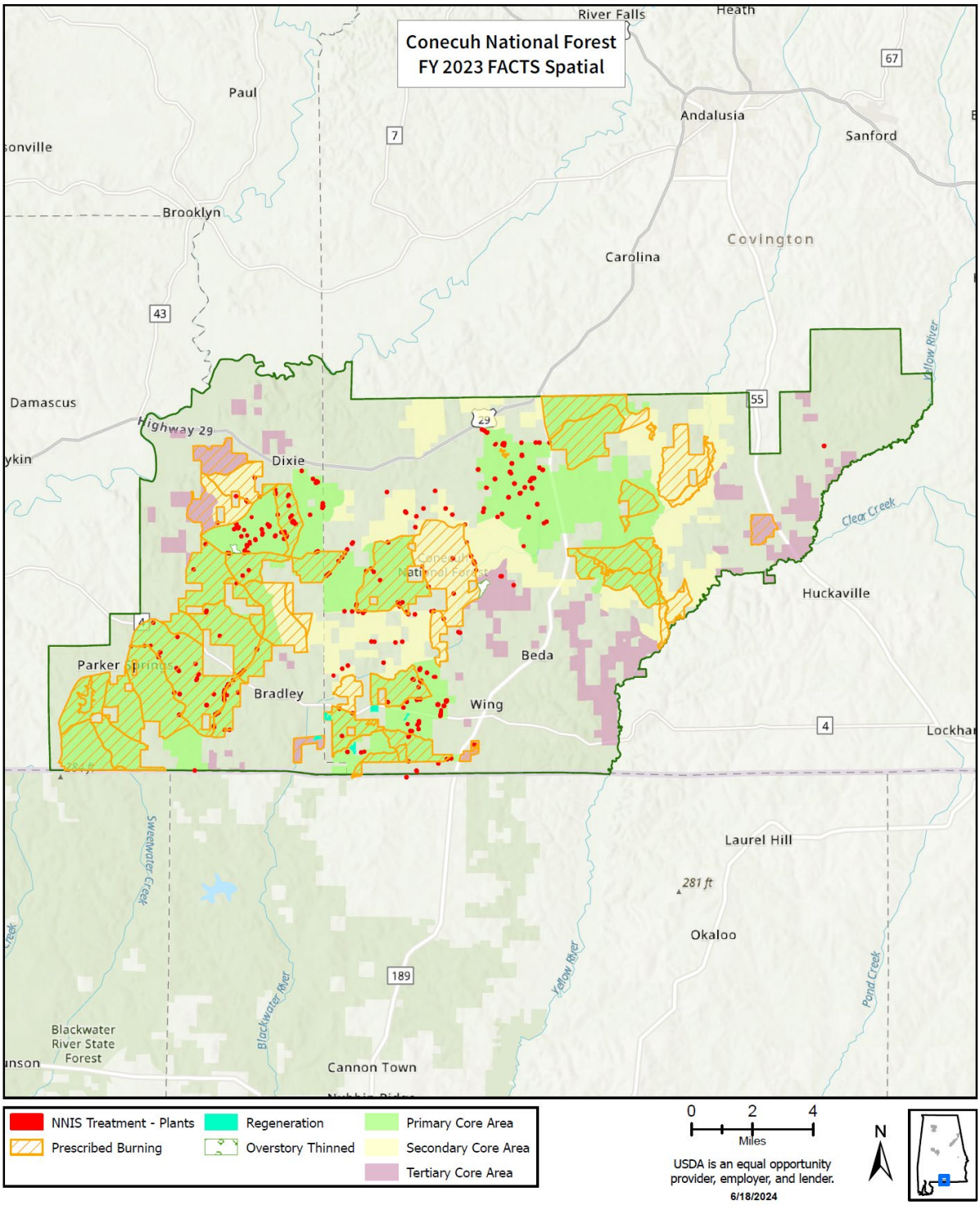

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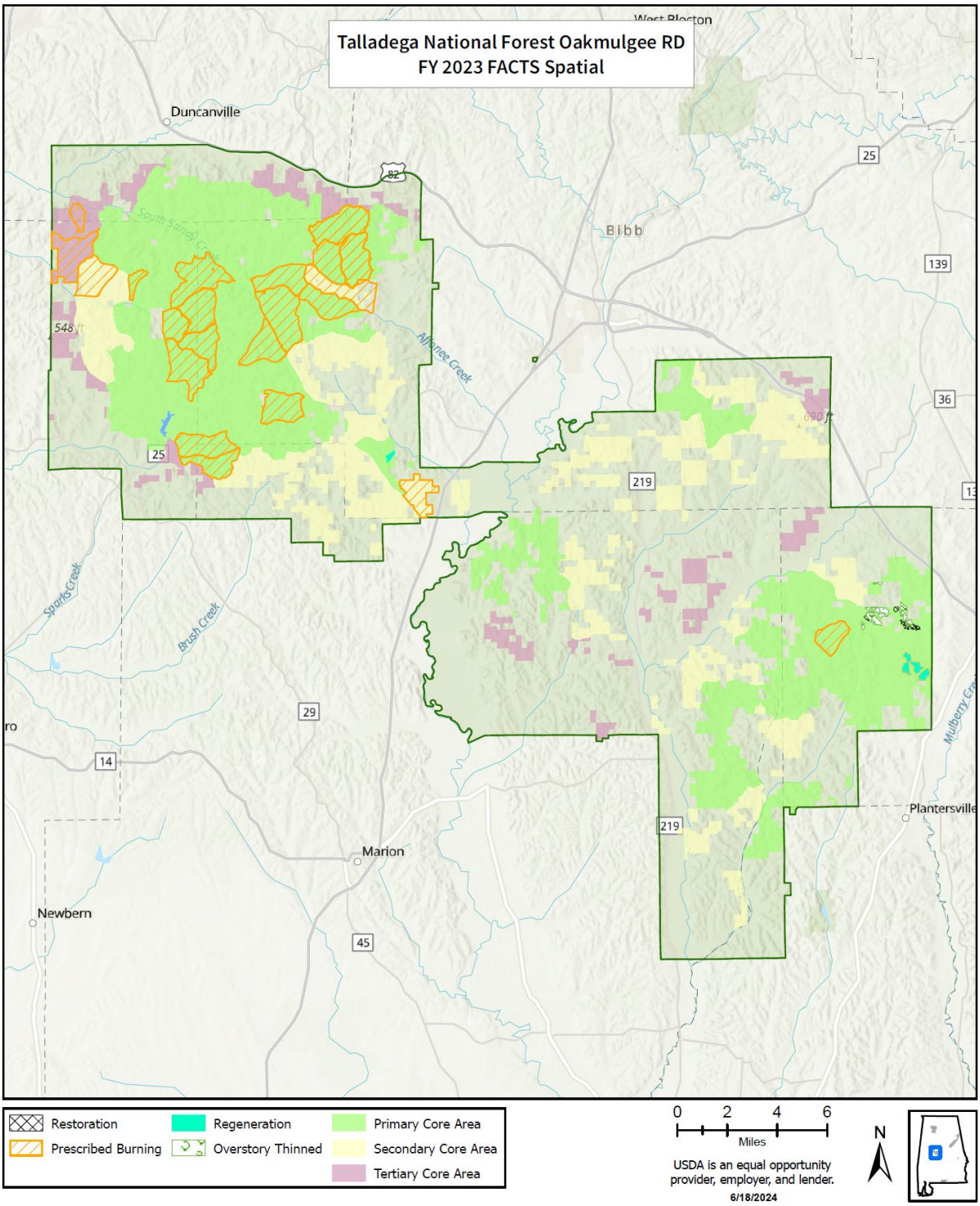

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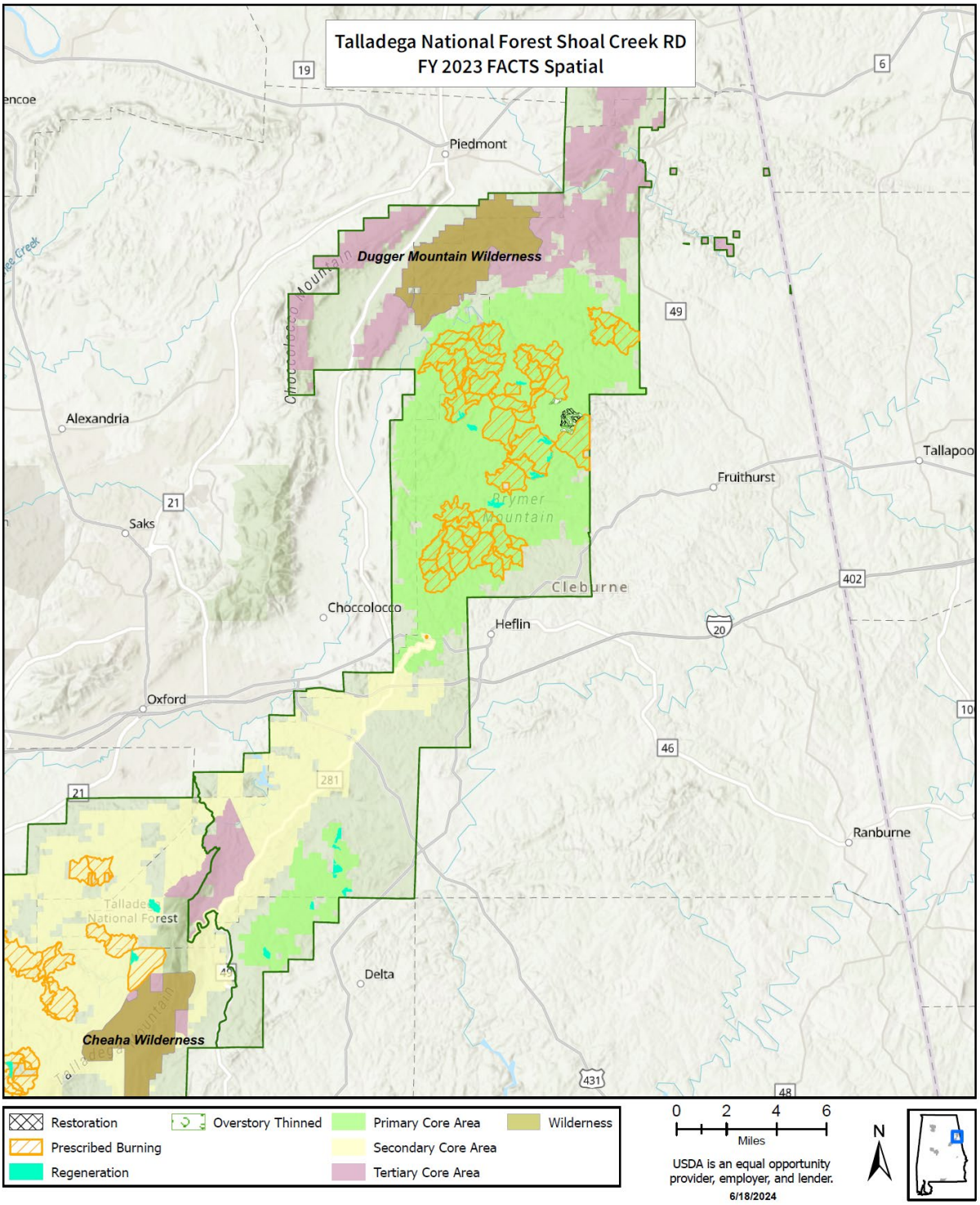

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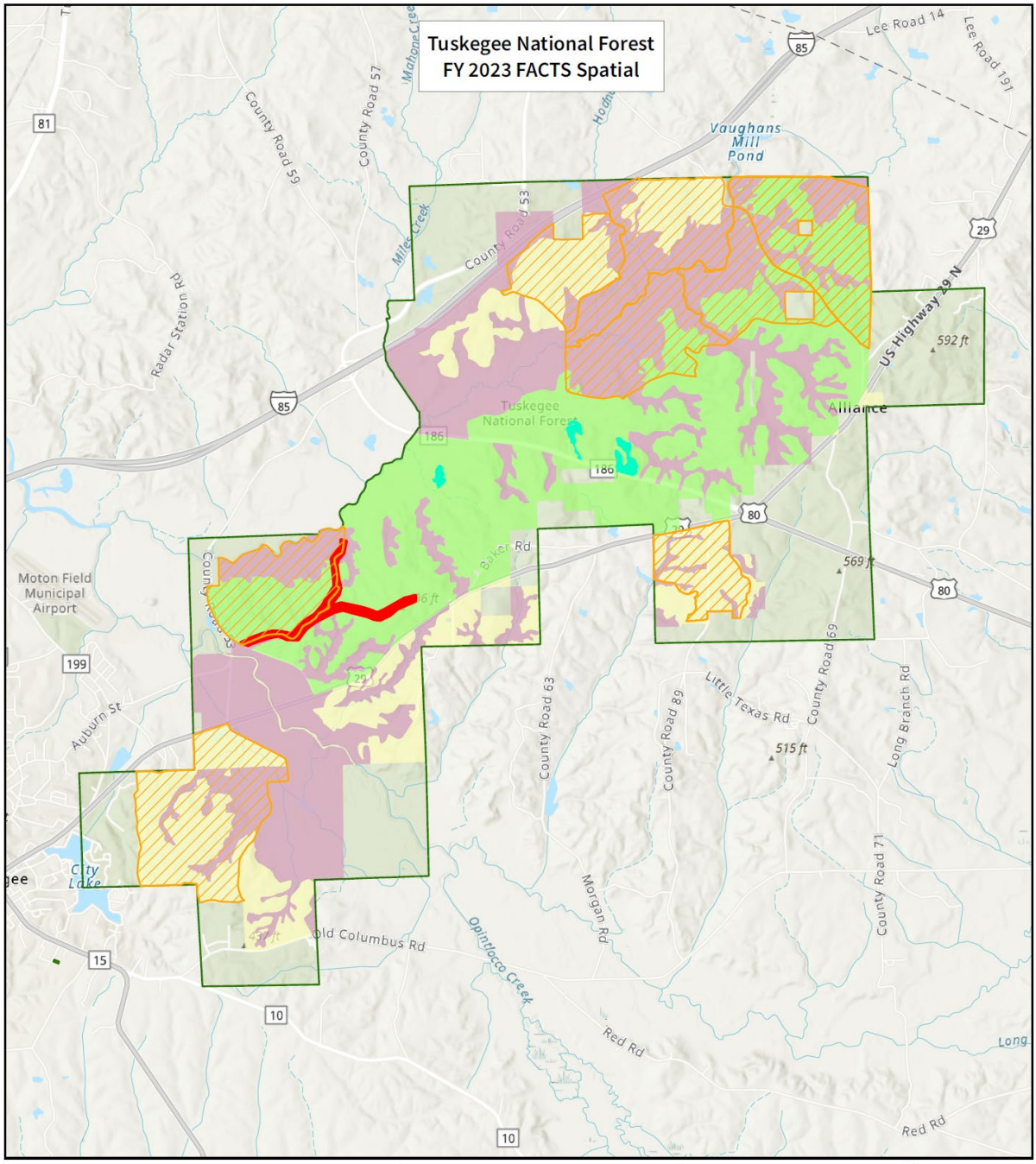

NNIS Treatment - Plants
Prescribed Burning
Regeneration
Primary Core Area
Secondary Core Area
Tertiary Core Area

0 2
Miles

N

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Appendix F National Forests in Alabama Strategy to Participate in the R8 Million Acre Challenge

Executive Summary

On October 23, 2017, the Southern Region issued the Million Acre Challenge to put an additional one million acres of National Forest System lands on the path towards longleaf restoration. As part of the Southern Region's goal of one million acres, the National Forests in Alabama was assigned a goal of 40,970 acres.

This strategy uses an integrated approach based on specific action items in current and future NEPA decisions that implement the National Forests in Alabama Revised Land and Resource Management Plan (RLRMP). The National Forests in Alabama Restoration Strategy focuses on areas with opportunities to achieve multiple goals and objectives, such as restoring forest health and resilience, Red-cockaded Woodpecker habitat, open woodland structure and native, fire-maintained ecosystems and watersheds, by the application of timber harvests and prescribed fire. This will serve as a roadmap for achieving the goals outlined in the Million Acre Challenge. Our partners are a key component in our ability to be successful and this strategy responds to the concerns of our key stakeholders as we take steps to reach our shared goals of longleaf restoration in the Southern Region's Million Acre Challenge. This also represents collaboration across the range of longleaf through ***America's Longleaf Restoration Initiative***.

Current Situation

The National Forests in Alabama encompass approximately 670,000 acres. The Forest consists of four proclaimed national forests: Bankhead, Conecuh, Talladega and Tuskegee, managed through six ranger districts, located across Alabama. There are four broad historically-present plant or vegetative communities located within these Forests: longleaf pine, shortleaf pine/oak-hickory, mixed hardwood/loblolly pine, and riparian forest communities. The theme of the RLRMP focused on reestablishing the composition, structure, and function associated with these historic forested ecosystems.

What sets Alabama apart is its incredible diversity. This extends through Alabama's geology and physiographic regions and results in plant, aquatic animal and terrestrial habitat diversity. Fire-maintained native upland ecosystems like longleaf, shortleaf and upland pine-oaks occur on each management unit. The Bankhead National Forest lies in the Southern Cumberland Plateau. The Talladega Division (Shoal Creek and Talladega Ranger Districts) occurs on the southern edge of the Southern Ridge and Valley, with portions of its southern extent in the Piedmont physiographic region. These two management units fall within the Southern Appalachian ecoregion. The Oakmulgee Division and Tuskegee National Forest lie at the edge of the Fall Line that demarcates the Upper Coastal Plain. The Oakmulgee Division is in west central Alabama and the Tuskegee is in east central Alabama. The Conecuh National Forest is in the Lower Coastal Plain physiographic region, bordering the state of Florida. The Oakmulgee, Tuskegee and Conecuh management units fall within the East Gulf Coastal Plain ecoregion. Fire-maintained, native, upland ecosystems in each of these regions experienced exploitative harvesting and several decades of fire exclusion resulting in under-representation of these ecosystems in today's landscape.

Revised 07/02/2018

Table 1: Existing vs Potential Acreage of Longleaf Pine (FT = 21, 26) Communities

Forest Unit (Total Ac)	2002 Existing LL Acreage (ac)	2017 Existing LL Acreage (ac)	Opportunities for Restoration (ac)	RLRMP Long-term Objective Acreage* (ac)	Existing Acreage of Total Objective (%)	Composition of Total Forested Landscape** (%)
Longleaf Pine (NFAL)	150,792	160,430	40,970	201,400	80%	30%
Bankhead (185K ac)	2,196			7,400	30%	4%
Conecuh (84K ac)	41,478			50,000	83%	60%
Oakmulgee(158K ac)	61,965			80,000	78%	51%
Talladega Division (231K ac)	43,024			60,000	72%	26%
Tuskegee (11K ac)	2,129			4,000	54%	37%

* Acreage based upon 2004 RLRMP EIS (pg. 3-114 thru 3-125)
** Based upon total forest acreage of 670,000 acres

Million Acre Challenge Acreage

Based on the Forest RLRMP, the long-term objective for longleaf pine acreage is 201,400. Currently the Forest has approximately 160,430 acres of existing longleaf pine forest types. The current longleaf acreage, accounts for approximately 80% of the Forest's long-term acreage goal. In order to meet the spirit and intent of the Million Acre Challenge, the National Forests in Alabama has developed a 5-year strategy for putting approximately 40,970 acres on the path towards longleaf restoration. This plan is based on an integrated approach tiered to the RLRMP and collaboration with our partners and stakeholders.

To aid in the prioritization of longleaf restoration opportunities, National Forests in Alabama analyzed and mapped previous management actions beginning with the implementation of the 2004 RLRMP. Identifying these areas enabled the Forest to prioritize where future restoration efforts should be focused in order to capitalize on previous investments. During the first 13 years under the RLRMP (2005-2017) the Forest met or exceeded the desired acreage for prescribed burning. However, the Forest consistently fell short on meeting objectives for restoration and thinning. During this time period the Forest restored approximately 16,000 acres of off-site species to longleaf pine, thinned 42,100 - acres of young and intermediate pine stands, and treated approximately 9,726 acres for non-native invasive species, all at rates well below the targeted outputs listed in the RLRMP. Acreages are as reported in M&E Reports with FACTS as the data source.

The Forest will employ the Three Step Trigger System to capture longleaf ecosystem restoration work accomplished during the past 10-year period, in a re-evaluation and update to FACTS and FSVeg data to be performed, culminating in the summer of 2018. The Forest will analyze specific activities in silvicultural prescriptions that contributed to achieving the desired future condition of a functional longleaf ecosystem. Looking forward over the next 5-year implementation period, each unit on the Forest prepared a District 5-Year Plan (updated annually) and these plans established priorities that emphasize the restoration of native

ecosystems using management tools such as timber sales, conversion of off-site species, prescribed burning, mid-story removal, non-native invasive species treatments, and native herbaceous species plantings. These planned treatments incrementally implement the RLRMP and feed the Forest's out-year Integrated Program of Work.

Table 2 displays the past 5 years of management actions contributing to longleaf restoration. These actions include stand restoration to longleaf pine through final harvest of off-site species, plantation first-thinnings and intermediate thinning, prescribed fire, mid-story removal, non-native species treatments and native species plantings. Duplicate acres of prescribed fire were not counted in the accomplished acres. The table also compares the outputs for the next 8 year period based upon the district's 5-Year Plans and fulfillment of the Million Acre Challenge and shows the average yearly increase in outputs compared to the previous 5 year period.

Table 2. Management Action 5-Year Outputs (2013-2017) compared to next 8-Year Planned Outputs (2018-2025)

	2013 to 2017		2018 to 2025			
Management Action	**Total 5-Year Outputs (ac)**	**Average Yearly Outputs (ac)**	**8-Year Planned Outputs (ac)[1]**	**Average Yearly Outputs (ac)**	**Increase in Average Yearly Outputs over next 5-years (ac)**	**RLRMP Yearly Output Goal (ac)**
Restoration of Off-site species	5,415	1,083	16,493	2,062	979	3,178[2]
Thinning	17,469	3,494	24,477	3,059	n/a	1,843[2]
Mid-story Removal	1,824	365	4,000	500	n/a	n/a
Rx Fire[3]	525,265	105,053	600,000[4]	120,000	n/a	70,000[5]
Non-native Invasive Plant Species Treatments	4,229	846	8,000	1,000	154	n/a
Native Species Plantings	45	9	400	50	n/a	n/a
Total Acres	**29,982**	-----		----	---	

[1] Includes outputs from activities listed in scheduled NEPA decisions, Appendix A.
[2] Years 11-20 Forest Plan Projected Harvested Acres (RLRMP FEIS at p.3-447)
[3] Prescribed burned acres for display only, they are not counted in total accomplishments.
[4] Total acres planned to be prescribed burned during 5-year period, some acres will be burned more than once during the period, acres include longleaf, fuel reduction and shortleaf-oak-hickory restoration and maintenance goals.
[5] RLRMP at page 2-53.

By combining management activities implemented on the ground and covered under signed prescriptions for the previous 10 year period along with the planned activities over the next 8 year period the Forest will have 201,400 acres on the path to longleaf restoration as outlined in the Three Step Trigger System developed by the Regional Office. Appendix A shows the Forest 5-Year Plan for scheduled NEPA decisions and subsequent silvicultural prescriptions within the 4 longleaf sub-management areas. The total treatment acres for the next 5 year period listed in Appendix A are higher than those listed in Table 2 above due to differences in prescribed total acres vs. post-treatment actual acres treated. Table 2 above counts treated acres only once, even though they may receive multiple treatments, i.e. thinning, prescribed burning, and mid-story activities.

Revised 07/02/2018

Focus Areas for Longleaf Restoration

Based upon the RLRMP, and the Local Implementation Teams (LITs) for longleaf pine that have grown up around units of the National Forests in Alabama, the Forest has identified two primary longleaf restoration emphasis areas. These areas were selected, in part, due to past integrated management activities which have resulted in restoring characteristics of longleaf communities. Focusing restoration efforts in these emphasis areas will enabled the Forest to capitalize on previous management investments and design projects to meet multiple restoration objectives.

- ***Talladega – Mountain Longleaf Conservation Partnership Local Implementation Team***

Three ranger districts making up the Talladega National Forest occur within the Talladega-Mountain Longleaf LIT. A forest-wide Joint Chiefs Project for National Forests in Alabama and the Natural Resources Conservation Service has just been completed. FY2018 is currently the 3rd and final year of implementation. The project goal was to collaboratively accelerate restoration of longleaf pine and other native ecosystems expanding the continuity, health and resiliency of these ecosystems across public and private lands. This project will continue to build on the success of the Joint Chief's Project by working closely with the Talladega-Mountain Longleaf LIT to expand opportunities to advance restoration of the longleaf ecosystem in this Significant Geographical Area as identified in the *Range-wide Conservation Plan for Longleaf Pine*. The following management actions are planned to be accomplished on the Talladega National Forest over the next 5-year period:

  - *Restoration of off-site (Stand Conversion) – 12,000 acres,*
  - *Plantation first thinning and Intermediate thinning – 16,000 acres,*
  - *Mid-story removal - 3,600 acres,*
  - *Prescribed Burning – 300,000 acres,*
  - *NNIS – 720 acres.*

- ***Gulf Coastal Plain Ecosystem Partnership Longleaf Local Implementation Team***

The Conecuh National Forest was the first to recognize the need for longleaf restoration and took the first steps in its longleaf EIS, completed in 1999. The Gulf Coastal Plain Ecosystem Partnership, began in 1996, and has been a collaboration partner to Conecuh in efforts to restore longleaf for over 20 years. The collaboration has been so long, diverse and successful as to have evolved into efforts to restore other components of the ecosystem, such as: native understory plants and communities, bog ecosystems and indigo snake habitats and populations. Thinning, non-native species control and prescribed burning are core activities necessary to maintain habitats that have been restored. Some

restoration of off-site slash stands remains to be done as well. The 5-year program of work for Conecuh includes:

- *Restoration of off-site (Stand Conversion) – 1,250 acres*
- *Plantation first thinning and Intermediate thinning -12,000 acres*
- *Mid-story Removal*
- *Prescribed Burning – 125,000 acres*
- *Non-Native Species Control – 340 acres*

Opportunities for Increasing Longleaf Restoration

- ***Program Integration*** – The Forest will work across functional and district boundaries to improve integration across all disciplines for project planning, budgeting, and implementation for restoration activities. District and Forest staff will work together to ensure that program integration is maximized to the fullest extent across the Forest. FSVeg, FACTS Spatial and GIS treatment layers will be updated annually to add data to those layers already created which display restoration efforts.
- ***Increasing Capacity*** – The Forest will continue to utilize current and new stewardship and Good Neighbor Authority opportunities to help build capacity in delivering restoration activities within the focus areas. Some of the activities will include restoration activities, non-native invasive plant eradication, native plant reintroductions, and watershed improvement activities which reduce soil erosion and enhance water quality. The Forest currently has four existing Good Neighbor Authority Agreements with AFC/FFS/AWFF. The Forest will continue to explore additional opportunities with state agencies, our Tribal Governments, and contracts to increase work capacity.
- ***Forest Priorities*** – National Forests in Alabama priorities are aligned with Regional and National priorities which will provide consistent messaging that restoration of our native plant communities is an Agency priority. The Forest Supervisor and Rangers will be engaged at both the Forest and District levels to provide leadership and align Forest goals with Regional and National goals.
- ***NEPA Efficiencies*** – The Forest will focus on gaining NEPA efficiencies by using the full suite of NEPA tools and expanding contracting for NEPA analyses to include archeology, flora and fauna surveys. Line Officer engagement is critical throughout the entire NEPA process to ensure that the analyses are commensurate with the need for informed decisions.

Challenges for Longleaf Restoration

- ***Project Planning*** – Some districts are better positioned than others for implementable, NEPA ready projects. This Forest does not staff NEPA positions on districts. District assistants perform NEPA roles as collateral duties. The Forest NEPA Planner maintains a spreadsheet to track and prioritize needs across the Forest which helps Forest Leadership make informed decisions.
- ***Constraints within RCW Habitat Management Areas (HMAs)*** – The RLRMP limits the size of restoration cuts to 25 acres and the percentage of acres in the 0-10 age classes to 8.3

percent within HMAs across the Forest. Foraging requirements for active RCW clusters and recruitment clusters can sometimes be a limiting factor for restoration opportunities. The Forest has initiated conversations with the local USFWS Field Office about reducing foraging requirements for RCW clusters within project areas. These permissions have been granted in the past.

- ***Funding Needs for Additional Capacity –*** There are concerns related to the funding needed to support NEPA analyses and associated archeology, flora and fauna surveys. Although the Forest is focusing efforts on gaining efficiencies in planning and implementation, additional funding will be needed to support contracts and Good Neighbor Authority Agreements.
- ***Addressing FSVeg data issues –*** The Forest has an IDIQ contract for Stand Exams and several collaborative agreements with qualified entities to gather common stand exam data. Now, resolving FSVeg data entry and gaps and minor component questions are the next step to receive QA/QC attention and updating.
- ***Alignment with Integrated Program of Work*** – The Forest began analyzing restoration in March of 2017 and therefore aligned our 2018 IPW needs with those goals.
- ***Resolving long term challenges*** – The Forest will use, to the fullest extent, the NEPA Support Services BPA awardees to accomplish work, over the long term (2019-2025)
    - Realize a marked increase in integrated NEPA ready projects.
    - Annually assess current conditions to determine net increase in longleaf acres.
    - Annually work with forests to take full advantage of existing grant opportunities and seek out additional grant opportunities with new and existing partners.
    - Work with partners and industry to locate and collect additional seed.
    - In addition to increasing acres of longleaf pine, focus efforts on maintenance of existing longleaf stands and improving ecosystem components.

Supply and Availability of Longleaf Seed

The National Forests in Alabama will need to restore by restoration clear-cut of off-site species 16,493 acres in eight years (2018-2025.) Assuming a level rate of accomplishment this results in a projection of 2,062 acres per year needing reforestation to longleaf pine. Almost all of this will need to be planted with containerized longleaf.

Summary

The Forest will continue to use an integrated approach tiered back to the RLRMP along with working with our partners and stakeholders to collaborate on longleaf restoration projects which will restore the land to a fully functional longleaf pine ecosystem. The National Forests in Alabama are well positioned to meet its goal for the Million Acre Challenge. By combining past management activities implemented on the ground and planned activities over the next 8 year period, the Forest will have 201,400 acres on the path to longleaf restoration by 2025 as outlined in the Three Step Trigger System developed by the Regional Office.

Revised 07/02/2018

APPENDIX A

Scheduled Longleaf Restoration NEPA Projects from District 5-Year Plans

Year	District	Project Name	Acres
2018	Oakmulgee	SPB Sales	1,212
	Shoal Crk	Post-Tornado Harvesting	2,369
	Talladega	Thinning and Data Clean up	601
	Conecuh	Boggy Hollow Sales and Cmpt 55/59	1,686
	Bankhead	Post-SPB Sales and Data Clean up	738
	Tuskegee	Compartment 18 Sale	193
		Sub-Total	**6,799**
2019	Oakmulgee	Perry Mountain	3,000
	Shoal Crk	Corax/Crotalus/Ivory	1,000
	Talladega		1,000
	Conecuh	Blue Spring West	1,000
	Bankhead	Houston/Forest Health Thinning	200
	Tuskegee	Upland Longleaf II	200
		Sub-Total	**6,400**
2020	Oakmulgee	Perry Mountain	3,000
	Shoal Crk	FY18 SPB Restoration	1,000
	Talladega	Sherman Cliffs	1,000
	Conecuh	Compartment 12/4 Thinning	1,000
	Bankhead	2017 Forest Health Thinning	200
	Tuskegee	Upland Longleaf II	200
		Sub-Total	**6,400**
2021	Oakmulgee	Perry Mountain	3,000
	Shoal Crk		1,000
	Talladega	Taylor Mill	1,000
	Conecuh	Compartment 40/67 Thinning	1,000
	Bankhead	2018 Forest Health Thinning	200
	Tuskegee	Upland Longleaf II	200
		Sub-Total	**6,400**
2022	Oakmulgee	South of Highway 25	3,000
	Shoal Crk		1,000
	Talladega		1,000
	Conecuh	Wolf Pit/Dixie	1,000
	Bankhead	2019 Forest Health Thinning	200
	Tuskegee	Upland Longleaf II	200
		Sub-Total	**6,400**

*Total treatment acres for the next 5-year period are higher than those listed in Table 2 due to total acres vs actual acres treated, and other restoration projects occurring on forest such as Shortleaf and Upland Oak/Hickory Restoration.

Revised 07/02/2018

Appendix G Recreational Events

Event	Event Purpose	Unit	Issue Date
CHAIN BUSTER RACING, INC	RECREATION (BICYCLE RACE), SU	SHOAL CREEK	10/2021
TODD HENDERSON FOOT RACE	RECREATION (FOOT RACE), SU	SHOAL CREEK	11/2021
NATIONAL ENDURO RIDE	RECREATION (MOTORCYCLE RIDE), SU	OAKMULGEE	11/2021
TIM LINDBLOM BICYCLE RACE	RECREATION (BICYCLE RACE), SU	TALLADEGA	01/2022
TODD HENDERSON 50K FOOT RACE	RECREATION (FOOT RACE), SU	TALLADEGA	02/2022
WAYNE LEE BICYCLE FUN RIDE	RECREATION (BICYCLE RACE), SU	TALLADEGA	03/2022
BECKI JONES FOOT RACE	RECREATION (FOOT RACE), SU	SHOAL CREEK	03/2022
JASON SHEARER MOUNTAIN BIKE EVENT	RECREATION (BICYCLE RACE), SU	TALLADEGA	03/2022
MAKE A WISH FOUNDATION OF ALABAMA, INC	RECREATION, SU	TALLADEGA	04/2022
TODD HENDERSON FOOT RACE	RECREATION (FOOT RACE), SU	SHOAL CREEK	05/2022
TREY CLARK FOOT RACE	RECREATION (FOOT RACE), SU	SHOAL CREEK	05/2022
CHEAHA EXTREME TRIATHOLON	RECREATION, SU	TALLADEGA	05/2022
ALABAMA STATE FOX HUNTERS' ASSOCIATION	RECREATION (DOG FIELD TRIALS), SU	CONECUH	05/2022
SOUTHEAST ENDURANCE RIDERS' ASSOCIATION	RECREATION (ENDURANCE HORSE RIDE), SU	SHOAL CREEK	05/2022
JOHNOTHAN JONES GROUP JEEP RIDES	RECREATION (JEEP RIDES), SU	TALLADEGA	05/2022
2022 REBECCA MOUNTAIN FOOT RACE	RECREATION (FOOT RACE), SU	TALLADEGA	09/2022
2022 CLEMENTS FAMILY REUNION	RECREATION (FAMILY REUNION), SU	OAKMULGEE	09/2022
NATIONAL ENDURO RIDE	RECREATION (MOTORCYCLE RIDE), SU	OAKMULGEE	09/2022
NATIONAL DUAL SPORT RIDE	RECREATION (MOTORCYCLE RIDE), SU	OAKMULGEE	09/2022
TODD HENDERSON FOOT RACE	RECREATION (FOOT RACE), SU	SHOAL CREEK	11/2022
CHAIN BUSTER RACING, LLC	RECREATION (BIKE RACE), SU	CONECUH	03/2023

SOUTHEAST ENDURANCE RIDERS' ASSOCIATION HORSE RIDE	RECREATION (ENDURANCE HORSE RIDE), SU	SHOAL CREEK	03/2023
TREY CLARK 2 DAY FOOT RACE	RECREATION (FOOT RACE), SU	SHOAL CREEK	04/2023
MOUNT CHEAHA 50K	RECREATION (FOOT RACE), SU	TALLADEGA	04/2023
ROCKIN CHOCCOLOCCO	RECREATION (FOOT RACE), SU	SHOAL CREEK	04/2023
NORTHEAST ALABAMA BICYCLE ASSOCIATION	RECREATION (BICYCLE RACE), SU	SHOAL CREEK	05/2023
ALABAMA STATE FOX HUNTERS' ASSOCIATION	RECREATION (DOG FIELD TRIALS), SU	CONECUH	05/2023
BECKI JONES FOOT RACE	RECREATION (FOOT RACE), SU	SHOAL CREEK	06/2023
2023 REBECCA MOUNTAIN FOOT RACE	RECREATION (FOOT RACE), SU	TALLADEGA	09/2023

Appendix H 2021 Southern Pine Beetle County Hazard Rating

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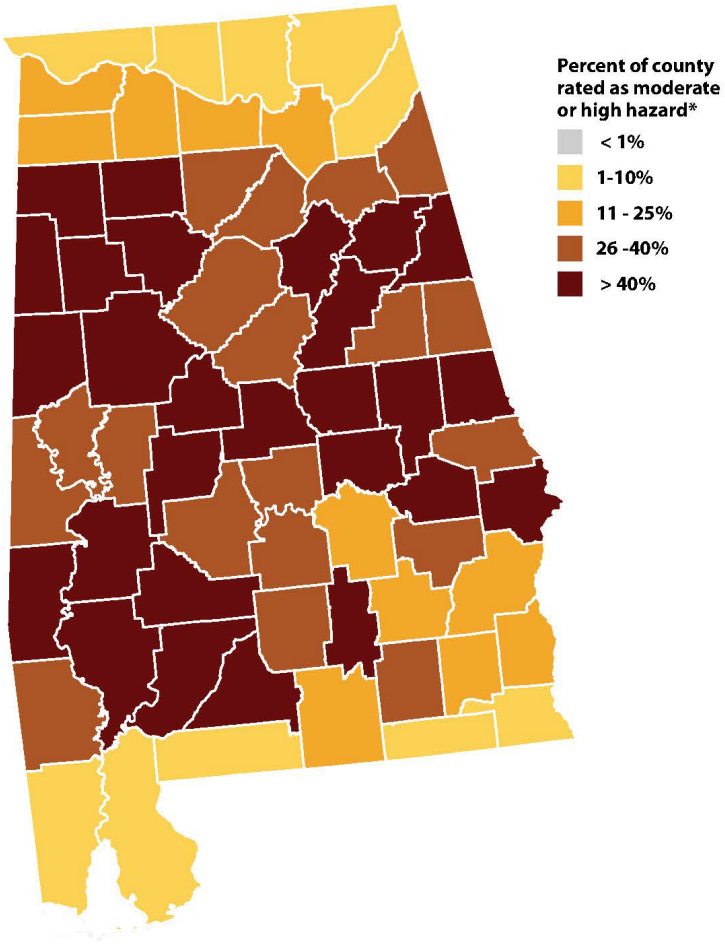
2021 SOUTHERN PINE BEETLE COUNTY HAZARD RATING FOR Alabama



*Hazard rating based on models from the 2012 National Insect and Disease Risk Map (NIDRM) using forest parameters from 2019 and accounting for major forest disturbances through 2021
–Moderate hazard = Areas projected to lose 11 to 24% of host basal area to SPB
–High hazard = Areas projected to lose 25% or more of host basal area to SPB