Forest Management Plan:
Salmen Scout Reservation
Southeast Louisiana Council
Hancock County, MS

January 23, 2026

Plan Duration:
2025 - 2035

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Corinth, MS 38834

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MITCHELL
FORESTRY & WILDLIFE SERVICES, LLC

January 23, 2026

Salmen Scout Reservation
Attn: Mr. Kenneth M. Klemm
4200 S. I-10 Service Rd. West Suite 101
Metairie, LA 70001

Dear Mr. Klemm:

As requested, the management plan for the Salmen Scout Reservation property in Hancock County, Mississippi, has been completed.

Generally speaking, the goals and objectives for the property are to maximize income over time through the use of sound, sustainable forest management practices. In accordance with your goals, we will make general recommendations and offer commentary regarding timber and wildlife management possibilities. Once you have approved suggested management practices and actions, we will also provide a schedule of activities for all the work to be done.

Please feel free to contact me if you have any questions or wish to discuss any aspect of the plan.
Thank you for allowing us to provide you with this service.

Sincerely,

Jay B. Mitchell
President-Mitchell Forestry and Wildlife Services, LLC.

FOREST MANAGEMENT PLAN
CONSERVATION PLANNING ACTIVITY (CPA 106)
AND
FOREST MANAGEMENT PRACTICE DESIGN
DESIGN AND IMPLEMENTATION ACTIVITY (DIA 165)

Client(s) Name(s):	Scouting America, SE Louisiana Council				
Farm Bill Program Name:					
Contract Number:					
Mailing Address:	4200 S I-10 Service Road W				
City:	Metairie	State:	LA	Zip:	70001
Physical Property address:	27585 Camp V-Bar Rd. Perkinston, MS 39573				
Phone number:	228-255-7336	Email:	torrey.hayden@scouting.org		
County:	Hancock	Farm and Tract:			
Total Ownership Acreage:	1,400	Acreage covered by this plan:	1,400		
TSP Name:	Jay Mitchell				
TSP Number:	TSP-09-6231	TSP expiration date:1/20/29			
TSP Mailing Address:	1825 Proper Street				
City	Corinth	State:	MS	Zip:	38834
TSP Phone number:	662-665-4762	TSP email:	jay@mitchellforestry.com		
Date of Original Plan Completion:	1/23/26				
Revision date(s):					

USDA United States Department of Agriculture
Natural Resources Conservation Service

Signature Pages

Technical Service Provider (TSP):
By signing below, the Technical Service Provider (TSP) certifies the work completed and delivered for this Forest Management Plan (106) and Forest Management Practice Design (165):

- Complies with all applicable Federal, State, Tribal, and local laws and regulations.
- Meets the General and Technical Requirements for this CPA and DIA.
- The planned practices are based on NRCS Conservation Practice Standards (CPSs) in the state Field Office Technical Guide where the practices are to be implemented.
- Is consistent with and meets the conservation goals and objectives for which the program contract was entered into by the client.
- Incorporates alternatives that are both cost effective and appropriate to address the resource issue(s) and client's objective(s).

TSP Printed Name: Jay Mitchell TSP Number: TSP-09-6231

TSP Signature: DocuSigned by: 8E064210115A43A... Date: 1/22/2026

Client/NRCS Conservation Program Participant:
I accept the completed deliverables as thorough and satisfying my objectives.

Client Printed Name: Scoutiing America, Southeast Louisiana Council

Client Signature: Signed by: Torrey Hayden 892EB65D66C5450... Date: 1/22/2026

NRCS Administrative Review:
By signing below, NRCS verifies that the plan as reviewed has satisfied the deliverables required.

NRCS Printed Name: _____ Title: _____

NRCS Signature: _____ Date: _____

Forest Stewardship Program
The purpose of the Forest Stewardship Program is to encourage the long-term stewardship of forest lands, by assisting the owners of such lands to more actively manage their forest and related resources. The Forest Stewardship Program is authorized by the Cooperative Forestry Assistance Act of 1978, as amended, 16 U.S.C. 2103A.

The Forest Stewardship Program provides professional planning and technical assistance to owners of forest land and other lands where good stewardship will enhance and sustain the long-term productivity of multiple forest resources. Special attention is given to landowners in important forest resource areas and those in the early stages of managing their land in a way that embodies multi-resource stewardship principles. This planning assistance may also provide landowners with enhanced access to other USDA conservation programs and/or forest certification programs. Your plan will also incorporate the following key redesign themes of the National Association of State Foresters wherever possible:

Conserve working forest lands
- Conserving and managing working forest landscapes for multiple values and uses.
- Identify and conserve high priority forest ecosystems and landscapes.
- Actively and sustainably manage forests.

Protect forests from harm
- Protect forests from threats, including catastrophic storms, flooding, insect or disease outbreak, and invasive species.
- Restore fire-adapted lands and reduce risk of wildfire impacts.
- Identify, manage and reduce threats to forest and ecosystem health.

Enhance public benefits from trees and forest
- Benefits include air and water quality, soil conservation, biological diversity, carbon storage, and forest products, forestry-related jobs, production of renewable energy, and wildlife.
- Protect and enhance water quality and quantity.
- Improve air quality and conserve energy.
- Assist communities in planning for and reducing wildfire risks.
- Maintain and enhance the economic benefits and values of trees and forests.
- Protect, conserve, and enhance wildlife and fish habitat.
- Connect people to trees and forests, and engage them in environmental stewardship activities.
- Manage and restore trees and forests to mitigate and adapt to global climate change.

Landowner Information

Name:	Boy Scouts of America – Southeast Louisiana Council Salmen Scout Reservation
Mailing Address:	4200 S. I-10 Service Rd. West Suite 101 Metairie, LA 70001
Property Address:	See GPS Coordinates
County:	Hancock
Country:	United States of America

Forester Information

Name:	Jay B. Mitchell, President – Mitchell Forestry and Wildlife Services, LLC.	
MS Registered Forester Number:	2385	
Organization:	Mitchell Forestry and Wildlife Services	
Mailing Address:	1825 Proper St.	
City, State, Zip	Corinth, MS 38834	
Contact Numbers:	Office Number:	(662) 287-0900
	Cell Number:	(662) 665-4762
	Fax Number:	(662) 665-9099
Email Address:	Jay@mitchellforestry.com	

Property Information

Hancock:
Section(s): 25,26,35,36 Township: **5** South Range: **14** West

Parcel #s: **017 -0-26-002.000**, **017 -0-25-004.000**, **017 -0-35-001.000**, **017 -0-36-002.000**, **017 -0-35-002.000**

GPS Location:

Entrance: Latitude: N **30.57226** **Longitude**: W **-89.35462**

General Location – The property is located in the northeastern corner of Hancock County near the Sellars Community. See the Location Map 4 in Appendix A for further details regarding property location.

Introduction
This Forest Stewardship Management Plan will serve as a guide for accomplishing the goals and objectives for your property. In addition to addressing your specific goals and objectives, this plan includes recommendations for maintaining soil and water quality and protecting your forest from the damaging effects of insects, disease, invasive species, wildfire and other resource elements on your property. Recommendations are based on observation and assessment of the site. Any questions concerning this plan should be directed to Mitchell Forestry and Wildlife Services, LLC.

Disclaimer
The information in this plan was derived from a brief inspection of the forest resources on the property. It includes general information that is only intended to be accurate enough for the purposes of making decisions for the short-term management of these resources. The information contained herein is temporally static. Events and circumstances may occur within the survey area that will physically alter the forest resources and therefore will not be reflected in this plan.

Landowner Objectives
The primary goal for the property is to maximize income from timber management through the use of sound, sustainable forest management practices. In general, we will plan on managing pine stands based upon a ±30-year rotation. The general philosophy for pine management will be to thin stands as needed to maintain healthy growing stands (See Appendix C pages 53-56 on Timber Stand Improvement). However, Mitchell Forestry will advise BSA of market conditions each time a harvest is needed in case it would be advantageous to conduct a final harvest on any given stand should the market situation dictate such. Final harvest will be determined by the landowner. Compliance with the Best Management Practices of the State of Mississippi is strongly recommended with all proposed practices within this plan.

Property Description
The property consists of ±1,400 contiguous acres in Hancock County, Mississippi. The property is located south of Highway 53 on V bar rd. approximately 20 miles northwest of Gulfport, MS. The topography is rolling with flat to gently sloping ridge tops with some steep terrain scattered throughout the property, and flat bottomlands next to the creeks and drains (See Maps 2 and 4 in Appendix A). Forest types include Loblolly, Longleaf, and Slash Pine Stands, hardwood bottoms, and mixed pine-hardwood stands throughout the property. The property is divided into 20 distinct timber stands. Currently there are ±504.57 acres of Longleaf Pine plantation on the property. Approximately 167.15 acres of bottomland hardwood timber along streams and drains, ±166.15 acres of mature natural southern yellow pine/hardwood, +/-129.71 acres of mature Loblolly Pine plantation, +/-126.27 acres of developed acres (camping area), +/-143 acres of cutover (unplanted), and 82.75 acres of mature Slash Pine. There are ±81 non-merchantable acres on the property such as various openings, food plots, lake (+/-52 acres), power-lines, roads, and buildings (See Map 7 Roads and Trails Map). **Please note, the tax records of Hancock County have not proven to be accurate where ownership locations and boundaries are concerned. We will clarify any boundary and ownership issues as we manage.**

Forest Health
New, previously unknown or under-recognized pests, pathogens and invasive species are a potential threat and can emerge and pose a serious threat to forest health. Outbreaks and impacts may be sudden, widespread and profound. Most landowners have limited ability to prevent, respond or control the impacts of a disturbance. Therefore, landowners are advised to take a practical, proactive approach to promoting the resilience, productivity and vitality of their forests. Landowners are encouraged to work with their qualified natural resource professional to understand and identify the range of stressors in which their woodlands may be vulnerable and consider measures to promote the resilience and reduce the susceptibility of their properties. **Mitchell Forestry will be your eyes and ears for these kinds of threats.** Integrated pest management (IPM) is an excellent approach to controlling, suppressing or preventing pests and can take many forms. Preventative measures, efforts to improve forest health or, in some other way, protect the property from injurious organisms are often the

most practical and effective approaches.

Pesticide applications may be used when other control measures are ineffective or impractical. The **landowner** is responsible for ensuring that the planned use of a pesticide is in compliance with the EPA label requirements.

Few dead trees were observed on the property. Most of this death was caused by storms in recent years. Death of non-storm-damaged pine trees is more than likely caused by some species of bark beetle, but no beetles are currently present. The species of beetle cannot be identified with certainty without specimens present, but is likely the black turpentine beetle (*Dendroctonus terebrans*) or the Ips Bark Beetle (*Ips spp.*). We recommend that this property be managed to promote vigorous growth of trees through thinning operations, and that prescribed fires should be conducted during the correct time period in order to reduce stress of the residual stand and limit the likelihood of future attacks.

Your property should be inspected annually for signs of insect and disease activity. Some things to look for are:
- Unseasonable leaf fall
- Discoloration of leaves or needles
- Popcorn shaped pitch pockets on pine trees
- Heavy defoliation of hardwood trees
- Groups of three or more dying trees within a stand

This list does not cover all instances of insect or disease attacks. If anything, unusual is noticed, report to your forester. In most cases, insect and disease problems can be controlled if discovered early. For more information concerning forest health and insect/disease visit http://www.mfc.ms.gov/forest-health.php and http://www.mfc.ms.gov/insects.php.

Soils
Soils were evaluated on the property to determine the suitability of the site for the proposed activities. Appendix B provides information on tree species productivity for each soil type. Primarily, site quality information was collected for your preferred tree species and harvest equipment limitations. Some areas of the property will require limited use due to equipment limitations. Forest practices are planned to minimize erosion or other adverse effects on the soil. Refer to Map 3 in Appendix A and Appendix B for soil descriptions.

Watershed – The property is located in the Mississippi Coastal Sub-Basin watershed which is part of the Mississippi River Basin watershed as identified by the Mississippi Department of Environmental Quality's Office of Geology (https://geology.deq.ms.gov/floodmaps/Projects/RiskMAP/?county=Hancock). Although the property occupies a small portion of this watershed area, the cumulative effect of site disturbances on all properties in the watershed could have adverse effects on soil fertility and water quality. Therefore, it is incumbent on every forest steward to prevent adverse effects from forestry activities and repair damage from forestry practices by installing BMP's when and where needed.

Wetlands - Wetlands have important hydrological, chemical, biological and socioeconomic functions. These functions add value to plant and animal habitats and help ensure a clean water supply today and for the future. In Mississippi wetlands can include: salt marshes, cypress and gum swamps, freshwater ponds and bogs, flood plain wetlands, and riverine wetlands found along the headlands of major rivers. Currently, areas defined as wetlands are restricted to stands located in streamside management zones (SMZs). The management strategy for these stands provides the needed protections for these areas. We will identify additional areas as designated wetlands as we manage and will not conduct any prohibited activities in such areas.

Activities in riparian zones and wetlands shall comply with applicable BMPs (http://www.mfc.ms.gov/pdf/Mgt/WQ/Entire_bmp_2008-7-24.pdf). Landowners are urged to review this pdf copy of the state forestry BMP guide or obtain a copy from their state forestry agency and to familiarize themselves with the guidelines in it for harvesting, road building, reforestation, habitat management and other forest activities.

Wood and fiber production
Forest product harvests and other management activities are conducted in accordance with the landowner's objectives and consider other forest values. While the management plan is not expected to address all possible facets of state-of-the-art forestry or habitat management, the plan is expected to avoid forestry or wildlife management practices that do not support sustainable forest management. For example, a plan that prescribes practices to maximize short-term income should not compromise long-term forest health or resilience.

To ensure sustainability, harvested forest land shall achieve adequate stocking of **desired species** within five years after harvest. Federal and state reforestation programs may provide guidance regarding adequate stocking levels that landowners may utilize as a reference to support management. However, certain wildlife habitat management regimes may favor lower stocking rates than the cost-share program or silvicultural guidelines do. Therefore, it is important to make sure the chosen guidelines fit the forest conditions and are consistent with landowner objectives.

Timber Stand Descriptions and Recommendations by Tract

Please note, all recommendations made in this section are based upon the stated goal of maximizing economic return while still adhering to sustainable practices**.** The following stand information was derived from site visits assessing the forest resources on the property. It includes general descriptions and stocking of the timber types and the species/products in each sub-merchantable and merchantable stand. Stands were delineated using multiple layers of aerial imagery as well as drone ortho forest photos (See Maps 5 and 8).

Stand 1: Slash Pine Age +/- 45 years old – +/- 30.65 acres

Stand Information - This is a mature Slash Pine stand broken into 3 parcels by Bell Creek and a feeder drain flowing into it. The pine diameters north of the creek are a larger ranging from 10 – 16” and 30 to 90 sq. ft. BA/acre. South of the creek the diameters range from 6 – 12” and 40 to 70 sq. ft. BA/acre. Also 10 – 40 sq. ft. of 6 – 10” bays/water oaks. The understory on the south part is very thick and brushy. See Map 5 in appendix A for stand location.

Recommendation

Due to poor stocking, difficult access, and the fact that the stand is broken up in 3 parts, it is recommended that the stand be clear cut and replanted. The stand being fragmented makes prescribed burning more expensive. In accordance with your goals, this stand should be clearcut and be put back into production with fast growing genetically enhanced Loblolly Pine seedlings. This recommendation will allow you to recognize income immediately as well as have the stand growing future income at a maximum rate. It is also recommended to perform a timber cruise to determine volume by product and current market value of the stand prior to marketing the timber sale.

Stand Activities – Monitor closely for invasive species encroachment and treat. Timber Sale. Reforestation. Implement prescribed burn and associated fire lanes.

Stand 2 – Streamside Management Zone – +/- 100.01 acres

Stand Information - This is Bell Creek and its stream side management zone. It consists of Sweet Gum, Black Gum, Sweet Bay, Yellow Poplar, Water Oak, and Willow Oak ranging in diameters of 6” – 26” with hardwood basal area ranging mostly from 60 to 110 sq. ft. There are small patches within the stand that are completely unstocked. Isolated 20”- diameter Loblolly and Slash are mixed in. Ground conditions vary from wet to upland slopes on the outer perimeter of the stand. See Map 5 in appendix A for stand location.

Recommendation

This stand is currently serving as a streamside management zone (SMZ) along Bell Creek and its smaller tributaries. In accordance with ownership goals and objectives we should maintain an appropriate SMZ along the creek to provide protection from erosion and any water quality issues. However, there are some more upland areas along the edges where the mature pine logs could be harvested without any adverse effect on the integrity of the creek. The stand also serves as a wildlife corridor providing habitat to various wildlife species. Preferred browse species such as Vaccinium Sp., Green Briar, Muscadine and American Beautyberry can be found in the understory but are in short supply in more shaded areas.

Stand Activities - Monitor the stand twice a year for pest damage and invasive species encroachment. Implement timber harvest activities when ground conditions are favorable.

Stand 3 – Longleaf Pine Stand Age +/- 18 years old – +/- 50.61 acres

Stand Information - This stand is a well-stocked Longleaf Plantation. Basal Area ranges from 60 to 90 sq. ft/acre. Diameters range from 4 - 10" dbh. The dominant/codominant pines are +/- 44' tall. The understory is made up of 5 – 12' tall Yaupon Holly, Vaccinium and some Chinese Tallow trees. There are isolated areas of 10 – 14" Longleaf Pine and scattered areas of Pitcher Plant, Wax Myrtle, and Sweet Bay. See Map 5 in appendix A for stand location.

Recommendation
Allow the stand to grow and increase in volume and value. Monitor for the opportunity to implement a first thinning. Incorporate this stand into the burning program with special focus on timely burns to control woody species in the understory and promote a fire tolerant plant community.

Stand Activities – Monitor the stand for invasive species encroachment. Re-evaluate in 3 to 5 years for a first thinning. Implement prescribed burn and required fire lanes.

Stand 4 – Longleaf Pine Stand Age +/- 4 years old – +/- 72.13 acres

Stand Information - This is a well-stocked Longleaf plantation with some patches of low stocked areas mixed in. The main area stocking ranges from 200 – 500 stems per acre (using 1/100-acre plots) averaging around 380 trees per acre. Understory consists of grassy areas and 4 -7' Yaupon Holly and American Beautyberry. A few Cogongrass spots are scattered within. There is an approximate 12 acre very brushy area with 7-8' tall Loblolly Pine saplings and spots of Longleaf Pine mixed in. This spot appears fully stocked but with mainly Loblolly Pine. See Map 5 in appendix A for stand location.

Recommendation
Implement the stand into the prescribed burn program. The first burn should be done in the dormant season (Winter). Consider a growing season burn (Spring/Summer) after a successful reduction of fuels with a dormant season burn.

Stand Activities – Monitor the stand for invasive species encroachment. Identify Cogongrass areas and apply herbicide. Implement prescribed burn and required fire lanes.

Stand 5 – Cutover +/- 52.51 acres (unplanted)

Stand Information- This mostly upland stand was recently cut. There is 2' – 3' tall Yaupon Holly, 2' – 4' tall Beautyberry, Sweet Gum and Winged Sumac and 3' – 5' feet of brush including Muscadine and Green Briar in the understory. See Map 5 in appendix A for stand location.

Recommendation
This stand is ready to be planted now. Apply site preparation herbicide to suppress the woody and herbaceous presence. Follow with a burn and planting of longleaf seedlings at a rate of 605 trees per acre or according to cost-share assistance instruction.

Stand Activities – Herbicide, burn, plant. Apply herbicide to the cogongrass areas and monitor for expansion. Once the stand is successfully established in longleaf, add the stand into the rotation of the prescribed burn program. Implement prescribed burn and associated fire lanes.

Stand 6 – Loblolly Pine Stand Age +/- 32 years old – +/- 44.25 acres

Stand Information - This is a healthy upland Loblolly Pine stand. The pine diameters range from 10 – 16" with some 6-8" and 18 – 20" dbhs. The pine basal area ranges from 50 to 110 sq. ft. BA/acre averaging 80 sq. ft./acre. Taller pines are 71 to 73 feet tall. There are 0 -30 sq. ft. BA/acre of hardwoods (avg. 16 sq. ft. basal area)– mainly 6 -10 water oaks with an occasional black cherry. There are 5 -15' tall yaupons, some beauty berries, sumac and sweet gum sapling in the understory but it is still walkable. See Map 5 in appendix A for stand location.

Recommendation

The stand has room to grow and will increase in volume and value. Add this stand to the prescribed burn plan with emphasis on controlling the undesirable hardwood understory by timely burns. Burning in the early spring after species such as yaupon and sweet gum have budded will help in their control. Monitor timber markets and consider this stand for a final harvest. Once the timber is harvested, the site is suitable to be planted in either loblolly or longleaf pine seedlings.

Stand Activities – Monitor the stand for invasive species encroachment. Implement prescribed burn and the needed fire lanes. Harvest and replant when appropriate with goals and objectives.

Stand 7– Brush/Sparse Pine Stand +/- 12 years old/ +/- 45.04 acres

Stand Information- This stand is a poorly stocked longleaf stand. Basically, it is a failed planting. The edges of this stand for about 100 feet (more in spots) have pine, but the interior it is just tall 2-3" dbh yaupon brush and the occasional water oak or loblolly pine. The longleaf pines are about 20' tall. There are large areas of cogongrass around the edge of the stand. There is an average of 20 sq. ft. BA of pine (12 sq. ft. BA of lob and 8 sq. ft. BA of LL) and 10 sq. ft. of mainly 5–6-inch dbh water oak and a few isolated magnolias.
See Map 5 in appendix A for stand location.

Recommendation

Implement prescribed burn and manage the stand as a pine savannah. Consider replanting the areas where there is no longleaf presence. Reforesting this overgrown area will require heavy mechanical site prep as well as chemical. Continued fire will promote fire tolerant species and create wonderful wildlife habitat.

Stand Activities – Apply herbicide to cogongrass and monitor for future applications. Add the stand to the prescribed burn plan rotation. Implement prescribed burn and associated fire lanes.

Stand 8 – Mixed Stand +/- 40 to 73 years old – +/- 65.65 acres

Stand Information- This is a healthy upland Loblolly stand with some hardwood mixed in. The pine diameters range from 8 – 16" with some scattered larger stems. The pine basal area ranges from 0 to 90 sq. ft. BA/acre averaging 33 sq. ft./acre. Taller pines are 85 feet tall. There are 20 -70 sq. ft. BA/acre of hardwoods (avg. 34 sq. ft. basal area). East of the road, the understory is very brushy with gallberry and 20' tall Water Oak saplings. The west part of the stand has a less brushy understory comprised of Gallberry and Yaupon Holly. There is a 5-acre area comprised of 3' – 5' brush and a few grassy areas with very little pine regeneration. See Map 5 in appendix A for stand location.

Recommendation

The stand has room to grow and can be allowed to do so until harvest is needed. Prescribed fire can damage hardwood stems decreasing quality therefore it is important to protect this area from fire. The upland pine areas could be incorporated into the burn plan; however great care should be taken in implementing the burn under proper weather conditions. This area could be clearcut and planted back to loblolly or longleaf pine now, but

could wait 2-5 years more to be evaluated for a harvest. It is also recommended to perform a timber cruise to determine volume by product and current market value of the stand prior to marketing the timber sale.

Stand Activities – Monitor the stand for invasive species encroachment. Identify Cogongrass areas and apply herbicide. Implement prescribed burn and needed fire lanes.

Stand 9 – Loblolly Pine Stand Age +/- 27 years old – +/- 85.46 acres

Stand Information- This is a healthy relatively recently thinned upland Loblolly stand. The pine diameters range from 10 – 14" dbhs and the stems are relatively straight and of good quality. The pine basal area ranges from 10 to 70 sq. ft. BA/acre averaging 43 sq. ft./acre. Total tree heights range from 50-60' feet tall. Yaupon Holly, Blackberry Briar, Southern Red Oak saplings, and native grasses can be found in the understory. See Map 5 in appendix A for stand location.

Recommendation
The stand has room to grow. Incorporate into the prescribed burn plan and focus on control of understory woody species control.

Stand Activities – Monitor the stand for invasive species encroachment. Identify Cogongrass areas and apply herbicide Implement prescribed burn and required fire lanes. Harvest and replant when appropriate with goals and objectives.

Stand 10 – Longleaf Pine Stand +/- 6 years old +/- 114.27 acres

Stand Information- This is a planted longleaf stand with low survival. Out of 7- 1/100-acre plots taken, the average tree count is +/-87 longleaf seedlings per acre in the southern part of stand. Residual longleaf in the stand are 5' to 15' tall. The understory brush consists of 10" to 20" yaupon and southern red oak saplings. Lower lying areas of the stand contain slash pine around a 1.5-acre clay pit +/- 10 acres (without pit acreage) This is basically 30 -50 sq. ft./acre BA with mainly 5 – 12-inch slash pine. Therea is open and 4 – 6' tall spotty yaupon areas. Some areas are greatly eroded. There is a significant amount of cogongrass in the stand. See Map 5 in appendix A for stand location.

Recommendation
This stand needs to be started over. The brush has grown tall and shaded out the forest floor, therefore there is little fuel to carry a prescribed burn. Heavy mechanical site prep is needed such as shear/rake or roller chopping and herbicide spray (and burn would probably be helpful too). This site is suitable for either longleaf or loblolly.

Stand Activities – Monitor the stand for invasive species encroachment. Follow the reforestation process through cost share programs. Identify Cogongrass areas and apply herbicide. Implement prescribed fire and construct the necessary fire lanes.

Stand 11 – Boy Scout Activity Area – Old Growth Pine/Hardwood +/-126.27 acres

Stand Information- This stand is a mix of loblolly pine, slash pine, upland water oaks with cabins, various outbuildings, and activity areas mixed in. See Map 5 in appendix A for stand location.

Recommendation
For this area, forest management is focused on preservation. Closely monitor any disease/pest issues with standing timber to ensure safety in this high activity area. If any issues arise such as diseased trees, lightning strikes, or wind damage they should be addressed quickly. Perform an assessment on any trees that could be a threat to any buildings at this time. It is often best to remove stems early before they have become rotten and

more difficult to fell safely.

Stand Activities – Monitor for invasive species. Assess the need to remove any problematic trees.

Stand 12 – Open Area +/-16.85 acres (Cutover unplanted)

Stand Information This stand appears to have been clear cut approximately 3 years ago. Species found include Yapon Holly, Gallberry, Winged Sumac, Sweet Gum, Common Persimmon, Chinese Tallow Tree, Cogongrass, and other native grasses. See Map 5 in appendix A for stand location.

Recommendation
This stand is ready to be planted now. Apply site preparation herbicide to suppress the woody and herbaceous presence. Follow with a burn and planting of longleaf seedlings at a rate of 605 trees per acre or according to cost-share assistance instruction.

Stand Activities – Herbicide, burn, plant. Apply herbicide to the Cogongrass areas and monitor for expansion. Once the stand is successfully established in Longleaf, add the stand into the rotation of the prescribed burn program. Implement prescribed burn and associated fire lanes.

Stand 13 – Old Cutover +/-54.11 acres

Stand Information - This is approximately an 8+ year old cutover on upland soil. The woods roads are badly eroded. Yaupon and water oak and southern red oak saplings are 8 – 20' tall. Natural loblolly regeneration varies from 0 to 300 naturally seeded loblolly 5 to 13' tall. There are areas with no visible loblolly regeneration. See Map 5 in appendix A for stand location.

Recommendation
With this stand there is an option to do nothing and allow the stand to grow. Incorporate into the burn plan rotation and allow it to mature. However, stocking will be low. It is recommended to apply for cost-share and replant the stand with longleaf pine seedlings. This will require heavy mechanical site preparation through shearing and raking following by herbicide application. Once the stand is established continue with periodic prescribed fire in accordance with the management plan.

Stand Activities – Monitor for invasive species encroachment. Prescribed burn and fire lane construction. Reforestation practices.

Stand 14 – Mixed Natural Stand +/-21.80 acres

Stand Information - This stand is a mix of fully stocked beautiful bottomland gum, bay, poplar and water oak 6 – 20" dbh and isolated large Loblolly Pine. There are also spots with 6 -12" diameter Longleaf and Loblolly with brushy open spots mixed in. There are also areas with isolated large Water Oaks. Bell Creek runs through the northeast corner of the stand. There is also a deep channel that runs into the creek. See Map 5 in appendix A for stand location.

Recommendation
Do nothing. Allow this stand to grow and mature and service as a buffer for Bell Creek and its tributaries.

Stand Activities – Monitor for invasive species encroachment specifically Cogongrass. Identify Cogongrass areas and apply herbicide Implement prescribed fire and associated fire lanes.

Stand 15 – Natural Pine Stand 50 – 55 years old +/-101.50 acres

Stand Information- This stand can be divided by a woods road. The east side is very thick with yaupon, gallberry and 2-4" dbh hardwood saplings 20+ tall. The understory is very dense. There is more pine volume on the west side of the stand. Pine diameters vary from mainly 12 -14" and basal area varies from 0 to 50 and averages around 25 sq. ft. per acre. The west part of this stand is similar with a little more longleaf pine and slightly less brush in spots. The interior of the stand look like it had significant storm damage from previous years. See Map 5 in appendix A for stand location.

Recommendation

Due to poor stocking, it is recommended that the stand be clear cut and replanted. Site prep activities will require both mechanical and chemical methods. In accordance with your goals, this stand should be clearcut and be put back into production with fast growing genetically enhanced loblolly or longleaf pine seedlings. This recommendation will allow you to recognize income immediately as well as have the stand growing future income at a maximum rate. It is also recommended to perform a timber cruise to determine volume by product and current market value of the stand prior to marketing the timber sale.

Stand Activities – Monitor the stand for invasive species encroachment. Timber sale. Reforestation activities. Implement prescribed burn and associated fire lanes prior to harvest activities.

Stand 16 – Longleaf Pine Stand +/- 5 years Old +/-126.85 acres

Stand Information- This stand is a low stocked longleaf pine plantation. This is a classic example of longleaf without fire being outcompeted by woody stemmed hardwood. The prolonged effect of hardwood competition and ineffective site prep herbicide has resulted in poor survival. The most northern portion of the tract has the best survival. Across the tract stocking varies from 1/100-acre plots with 2 longleaf stems per plot in brushy areas to 3-6 longleaf stems in the better areas. The brush varies from 5 -15' tall. The longleaf saplings are 4 -14' tall. See Map 5 in appendix A for stand location.

Recommendation

Implement prescribed burn and manage the stand as a pine savannah. Implement burns in a timely manner with careful consideration given to controlling undesirable woody plant species. Be cautious and do not burn during the candling stage of longleaf seedlings (Late March to Late April). Consider replanting the areas where there is no longleaf presence. Reforesting this overgrown area will require heavy mechanical site prep as well as chemical. Continued fire will promote fire tolerant species and create wonderful wildlife habitat.

Stand Activities – Monitor the stand for invasive species encroachment. Follow the reforestation process through cost share programs. Identify Cogongrass areas and apply herbicide where needed. Perform prescribed burning and construct the necessary fire lanes.

Stand 17 – Streamside Management Zone +/-44.29 acres

Stand Information- This stand is a predominantly hardwood stand comprised of Sweet Bay, Yellow Poplar, and Black Gum tree species. The stocking is approximately 70 -160 sq. feet of BA. Diameters range from 5" to 30". There is also a few Spruce Pines found scattered throughout the stand. Various ferns and white titi can be found in the understory. See Map 5 in appendix A for stand location.

Recommendation

This stand is currently serving as a streamside management zone (SMZ) along an intermittent stream extending southward from the lake. In accordance with ownership goals and objectives we should maintain an appropriate SMZ along the branch to provide protection from erosion and any water quality issues.

Stand Activities – Monitor the stand twice a year for pest damage and invasive species encroachment. Identify Cogongrass areas and apply herbicide.

Stand 18 – Longleaf Pine Stand +/- 6-year-old +/-95.57 acres

Stand Information- The northern area of this stand is poorly stocked with the exception of an area approximately +/- 6 acres in size. This area has approximately +/-300 seedlings per acre. There is an extremely thick presence of underbrush comprised of Yaupon Holly, American Beautyberry, and Southern Red Oak saplings which vary in size from 6' to 12'+ in height. The southern area is adequately stocked with some native grass areas (especially to the east). The average stocking was estimated to be +/- 300 Longleaf seedlings per acre. The understory brush is not as thick as the northern area of the stand. See Map 5 in appendix A for stand location.

Recommendation
Perform prescribed burn in the dormant season and in the growing season in the future in order to gain control of the woody vegetation in the understory. Some areas may not burn well due to the lack of fuels on the forest floor when species such as Yapon Holly have shaded out the understory. Reevaluate after prescribed burns for areas of low stocking that need to be spot planted.

Stand Activities – Monitor the stand for invasive species encroachment and apply herbicide to any Cogongrass. Spot plant Longleaf seedlings if necessary. Implement prescribed burn and associated fire lanes.

Stand 19 - Cutover +/-19.53 acres

Stand Information- This area looks like it was clearcut +/-3 years ago. It consists of 3 to 7' tall yaupons, with a mix of gallberry and some native grasses. See Map 5 in appendix A for stand location.

Recommendation
Follow reforestation plan for longleaf seedlings through the NRCS program to site prep spray, burn, and replant containerized longleaf seedlings at a rate of 605 trees per acre. After successful establishment, incorporate this stand into the prescribed burn plan rotation.

Stand Activities – Monitor the stand for invasive species encroachment. Follow the reforestation process through cost share programs. Identify Cogongrass areas and apply herbicide. Perform prescribed burning and construct fire lanes.

Stand 20 - Slash Pine Stand +/- 30 years old +/- 52.10 acres

Stand Information- This is a well-stocked Slash Pine Stand. The slash pine basal area varies from 70 to 90 sq. ft. per acre with a few low areas of 20 sq. ft. per acre. The pines range mostly from 8 – 16" dbh with most being in the chip 'n saw/sawtimber size-product. The codominant and dominant trees are 70 – 80 'tall. There are some upland water oaks around the edge of the stand near the hardwood drains. The west 6 acres of the stand have a higher basal area (+/- 130 sq. ft. per acre) with smaller 6 -10" pines that have not been thinned. The understory is a little thick with 5 -15' primarily Yaupon Holly, but it is still fairly easy to maneuver under the understory. See Map 5 in appendix A for stand location.

Recommendation
We recommend clear-cutting the stand. This would allow for income now and, once reforested, allow the stand to grow more volume/value for you in the future. Following the clear-cut operation, the stand should be chemically site prepared and planted with genetically enhanced Loblolly Pine. This recommendation will allow you to recognize income immediately as well as have the stand growing future income at a maximum rate. It is also recommended to perform a timber cruise to determine volume by product and current market value of the stand

prior to marketing the timber sale.

Stand Activities – Conduct timber sale operations. Reforest under cost-share programs. Monitor the stand for invasive species encroachment. Identify Cogongrass areas and apply herbicide. Implement prescribed burn and associated fire lanes.

Timber Stand Recommendations - Summary for the 10-Year Planning Horizon

All recommendations above were made in accordance with the management goal of increasing/maximizing economic return from the timber resources on the properties. The following information is an estimated summary of acres to be harvested and the immediate return which can be obtained by putting these recommendations into motion. A timber cruise is recommended prior to marketing any timber sales.

- **Potential Acres to Harvest** - ±250
- **Potential Acres for prescribed fire** - ±1,100
- **Estimated Income from Harvest** - ± To be determined by timber cruise
- **Current Acres to reforest** - ±89
- **Estimated Cost to Reforest** (on the high side) - $375/acre (Longleaf)

Threatened and endangered species

Under the Endangered Species Act (ESA), landowners are required to protect occupied habitat for threatened or endangered animal species. If landowners or designated representatives become aware of the presence of a threatened or endangered animal species on their property, it is their duty to review the requirements for protecting the habitat for that species and to take appropriate actions in the management of their property. Landowners may choose to go above and beyond ESA requirements and protect unoccupied animal habitat.

Although private landowners are not required to protect threatened or endangered plant species under the ESA, landowners are encouraged to do so. The US Fish and Wildlife Service has published a recent listing of T&E species for each Mississippi county (https://ecos.fws.gov/ecp/report/species-listings-by-state-totals?statusCategory=Listed). Table 1 shows T&E species known to exist in Hancock County, MS.

Table 1. List of threatened and endangered species known to currently exist in Hancock County, MS, as listed by US Fish and Wildlife Service.

Hancock County				
Category	**Species**	**Scientific Name**	**Status**	**Optimal Survey Window**
Amphibians	Dusky Gopher Frog	*Rana sevosa*	E/CH	Dec 1 – Mar 31
Birds	Eastern Black Rail	*Laterallus jamaicensis jamaicensis*	T	Mar 15 – Aug 15
	Piping Plover	*Charadrius melodus*	T/CH	Aug 15 – Mar 31
	Rufus Red Knot	*Calidris canutus rufa*	T	Aug 15 – Mar 31
Fishes	Gulf Sturgeon	*Acipenser oxyrinchus desotoi*	T/CH	Mar 1 – Oct 15
Insects	None			
Mammals	Florida Manatee	*Trichechus manatus latirostris*	T	Apr 15 – Dec 31
	Northern Long-eared Bat	*Myotis septentrionalis*	E	Mar 1 – Oct 15
	Tricolored Bat	*Perimyotis subflavus*	PE	Mar 1 – Oct 15
Mussels	Inflated Heelsplitter	*Potamilus inflatus*	T	Low flow conditions
	Louisiana Pigtoe	*Pleurobema*	PT	Low flow conditions
	Undescribed Hickorynut	*Obovaria cf. unicolor*	PT	Low flow conditions
Plants	Louisiana Quillwort	*Isoetes louisianensis*	E	Nov 1 – May 31; Sufficient rainfall
Reptiles	Black Pinesnake	*Pituophis melanoleucus lodingi*	T	Mar 15 – Sep 30
	Gopher Tortoise	*Gopherus polyphemus*	T	Mar 15 – Sep 30
	Green Sea Turtle	*Chelonia mydas*	T	N/A
	Hawksbill Sea Turtle	*Eretmochelys imbricata*	E	N/A
	Kemp's Ridley Sea Turtle	*Lepidochelys kempii*	E	N/A
	Leatherback Sea Turtle	*Dermochelys coriacea*	E	N/A
	Loggerhead Sea Turtle	*Caretta caretta*	T	April 15 – Sep 15
	Ringed Map Turtle	*Graptemys oculifera*	T	May 15 – Aug 15
	Pearl River Map Turtle	*Graptemys pearlensis*	T	May 15- Aug 15
	Alligator Snapping Turtle	*Macrochelys temminckii*	PT	Apr 15 – Sep 30

Under the AFF Standards, landowners are expected to make a good-faith effort to identify any known occurrences of these T&E species on their property through on-site review and the use of a qualified natural resource professional or natural heritage databases.

Special sites

Special sites are managed in ways that recognize their unique historical, archeological, cultural, geological, biological or ecological characteristics. Landowner shall make efforts to identify and protect any known special sites especially during forest management activities. These efforts may include creating a vegetation buffer, fencing the area or otherwise distinguishing it from surrounding areas. Because special sites are often in the ground, measures may be taken to control erosion and limit soil disturbance. Landowners are advised to review their special sites map and protection plan with qualified natural resource professionals and qualified contractors

assisting in forest management activities. After harvests, landowners are encouraged to follow up to ensure adequate protection.

As we conducted our work we observed for the existence of special sites of historical, cultural, archeological value. None were identified on this property. However, likely of significance is the proximity of some of the timber stands to existing industries and buildings. Mitchell Forestry will work with The Boy Scouts of America Council to ensure that proper management of those timber stands as they relate to current structures.

Invasive Species
Landowners or designated representatives should consult with their state forestry agency or qualified natural resource professional to learn about the range of recommended management techniques for any particular invasive species on their property.

Integrated pest management (IPM) is an excellent approach to controlling, suppressing or preventing invasive pests and can take many forms. Preventative measures, efforts to improve forest health or, in some other way, protect the property from injurious organisms are often the most practical and effective approaches. Pesticide applications may be used when other control measures are ineffective or impractical. When pesticides are used, the landowner is responsible for ensuring that the planned use of a pesticide is in compliance with the EPA label requirements.

While conducting our field work, we observed for invasive species. Cogongrass (*Imperata cylindrica*), Japanese Climbing Fern (*Lygodium japonicum*), and Chinese Tallow Tree (*Triadica sebifera*) were identified on the property. It is recommended to form a plan of treatment to address the issue and in the future the property should be continually monitored for encroachment of this invasive species. A publication is attached in Appendix C to familiarize the landowner with Cogongrass (pages 49-50) and Chinese tallow tree (51-52) and strategies to deal with them. Also visit https://www.mfc.ms.gov/forest-health/invasive-plants/chinese-tallow-tree/ and https://www.srs.fs.usda.gov/pubs/rn/rn_srs020.pdf for more information on invasive species found in the area.

Forests of Recognized Importance (FORI)
(FORI) represent significant large landscape areas of exceptional ecological, social, cultural, or biological values. These forests are recognized for a combination of unique values, rather than a single attribute. FORIs may include but are not limited to landscapes with exceptionally high concentrations of one or more of the following:

• protected, rare, sensitive or representative forest ecosystems such as riparian areas and wetland biotopes
• areas containing endemic species and critical habitats of multiple **threatened or endangered** plant and animal species
• recognized large-scale cultural or archeological sites including sites of human habitation, cities, burial grounds and in situ artifacts
• areas containing identified and protected water resources upon which large metropolitan populations are dependent
• areas containing identified unique or geologic features including geysers, waterfalls, lava beds, caves or craters

In Mississippi we have guidance on designating special sites. The Mississippi Department of Archives & History (http://mdah.state.ms.us/index.html) preserves and promotes the state's cultural heritage. Historic Preservation– provides assistance in identifying and protecting historic properties, archaeological sites, burial places, and other cultural sites in the state. State Archives – identifies, preserves, and makes accessible records (such as census records, military records, family histories, and various county, state and federal records) and other documents that can help you research your special sites. The timber along the Tenn-Tom Waterway should be managed in a manner that will protect water quality but this will not prohibit some harvesting if so desired.
Other Resource Considerations and Recommended Plan Activities:

Use of Consulting Foresters, and other Natural Resource Professionals and Private Contractors – The services of qualified natural resource professionals and qualified contactors can prove very cost-effective for landowners. The landowner should consult or seek guidance from qualified natural resource professionals, agencies, academic institutions or professional associations, to ensure that potential negative impacts on the ecosystem are avoided or minimized. If landowners wish to ensure they are being properly represented in all forest management activities, the use of an accredited Consulting Forester is highly recommended.

Prescribed Fire – The use of prescribed fire shall conform to landowner's objectives, pre-fire planning, and state and local laws and regulations. Prescribed burning includes controlled burning of piles, windrows and broadcast fire applications. Before burning, a prescribed burning plan is recommended, which will include reconnaissance of the burning block, estimates of fuel condition, required weather conditions and adequate means of controlling the fire after it is set. A notarized written burning plan and a burning permit are recommended in MS.

The landowner will comply with the prescribed fire act of 1992 (1) a prescribed burn manager will be on-site with each fire, (2) a detailed burning plan will be notarized at least 1 day before, (3) a burning permit will be obtained from the MFC, and (4) the public benefit of each burn will be described for each prescribed burn.

For the purpose of this plan, multiple burning compartments will be identified and proper fire lanes will be constructed in order to perform the desired prescribed burning on the property. Roughly 1,000 acres of the property is considered burnable. The goal in the first year is to burn what is signed up under the current contract with the Natural Resource Conservation Service (NRCS). After which, a 2-year burn plan will be established with the goal to burn approximately 500 acres each year (Map 6). Both dormant and growing season burns will be implemented in the plan with great consideration given to timing for each area. The purpose of these burns is to reduce fuel load in the stand, promote Longleaf Pine forests, and encourage new growth for wildlife.

Recreation – With the ownership of property comes the benefit of recreational enjoyment. This may include hiking, biking, camping, hunting, bird watching, fishing, or family picnics. The landowner wishes to do so while being a good steward of its natural resources.

Forest Aesthetics – Forest aesthetics are of great importance in the development of this management plan. Employing forest aesthetics into the management plan can produce a much more visually appealing experience on property visits for owners, their guests and passers-by using nearby public roads. We understand that it is the desire of the landowner for this pine forest to have a park-like appearance by removal of undesirable brush in the understory and promotion of wildlife-friendly vegetation. For the time period of this plan aesthetics will be considered in all management activities and special measures will be taken in situations that are deemed necessary. Special consideration is given to developed areas for the purpose of scout reservation camp activities.

Biomass – Biomass is the above-ground woody material that is removed from forests for energy production. This typically includes logging slash, small diameter trees, tops, limbs, and cull trees. Biomass harvesting may be conducted at the same time as conventional logging, as an intermediate treatment, or as a stand-alone practice. Of concern is the potential of biomass harvests to pull a large amount of nutrients off the site and reduce soil productivity.

Carbon –In the United States, a few companies offset their carbon emissions by investing in carbon accumulation projects like cottonwood plantations. Landowners have an opportunity to be paid for managing their forestlands to maximize carbon sequestration. Often times, landowners must contract with a carbon registry to have their lands included in a larger carbon pool.

For the time period of this plan some viable carbon markets may become viable and may fit your ownership goals without prohibiting any economic development. If so, we will work to increase your economic return through

enrollment in these plans.

Biological diversity – The landowner is interested in sustaining a biological diverse environment for both plants and animals, which will be accomplished through some NRCS enhancement activities. Activities can be found on the NRCS website (https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/csp/)

Fish and wildlife – Eastern wild turkey (Meleagris gallopavo), and whitetail deer (Odocoeleus virginianus) are among the game species that frequent the property. There are also many species of neotropical migratory birds, non-migratory birds, amphibians, and reptiles that inhabit the area. The management strategies recommended in this plan promote wildlife habitat improvements which increase opportunities such as wildlife viewing for youth development programs such as this.

Fire Protection – Your forest should be protected from wildfire at all times. The best way to protect your investment is by establishing and maintaining firebreaks, gates, and access roads on your property. You should also install *FireWise* (http://www.mfc.ms.gov/firewise.php) practices to defend any structures and improvements on the property. Also, keep a list of emergency responders to call if a wildfire should occur on or near your property. With multiple structures on the property, as well as neighboring homes, barns, etc. precautions will be in place when burns are conducted. Fire lanes will be present around each stand and will be groomed prior to burning.

Destructive Grazing – Tree seedlings should be protected from grazing until such time as the terminal bud of the sapling is beyond reach of livestock. Domestic livestock should be denied access to the tree planting area until the time in which the foliage of the trees is out of the animal's reach. At the time of this plan there is no livestock on the property.

Boundary Lines – It is the responsibility of the landowner to ensure that all property lines and any interior boundaries designating areas to receive forestry work are clearly identified and visible to all contractors.

Note: Some forest practices may cause temporary adverse environmental or aesthetic impacts. These practices will only cause short-term adverse impacts where they are installed. Special efforts will be made to minimize adverse effects when carrying out any of the practices. Examples include: site preparation, planting, prescribed fires, firebreak installation and maintenance, road installation and maintenance, pesticide applications and timber harvesting.

Signatures and Approvals

Landowner

I have reviewed this plan and believe the management recommendations will help meet my goals and objectives for my property. I agree to follow this plan to ensure the sustainability of my management.

Signed by:
Torrey Hayden
892EB05D66C5450...
Landowner

1/22/2026
Date

American Tree Farm Program

I certify that this Forest Management Plan meets the requirements of the American Forest Foundation's American Tree Farm System.

Mitchell Newman	75238	7/28/25
ATFS Inspecting Forester	Number	Date

Certified Tree Farm Number: MS-295288 Date of ATFS Certification:

Appendix A:
Maps

MITCHELL
FORESTRY & WILDLIFE SERVICES, LLC

Map 1. Aerial Map
Salmen Scout Reservation
± 1400 Acres in Sections 25, 26, 35 & 36 of T5S & R14W of Hancock County, Mississippi

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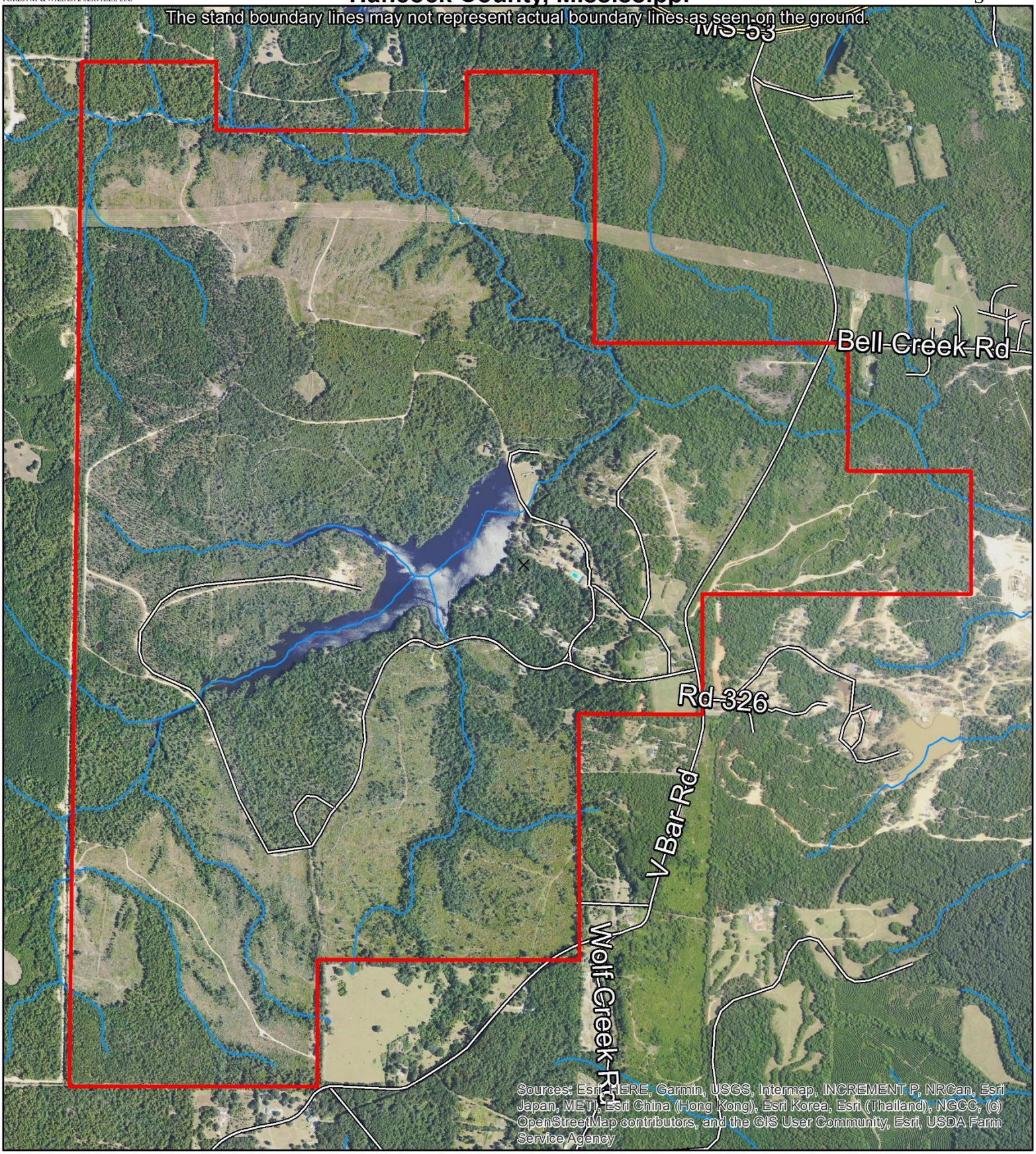

Coordinate System: NAD 1983 UTM Zone 16N
Projection: Transverse Mercator
Center Coordinates: 30.5749 -89.3605
Date: 7/8/2025 Prepared By: Jay Mitchell

1 in = 1,320 ft

0 660 1,320 1,980 2,640

Salmen_Scout_Reservation

MITCHELL
FORESTRY & WILDLIFE SERVICES, LLC

Map 2: Topographic Map
Salmen Scout Reservation

± 1400 Acres in Sections 25, 26, 35 & 36 of T5S & R14W of Hancock County, Mississippi

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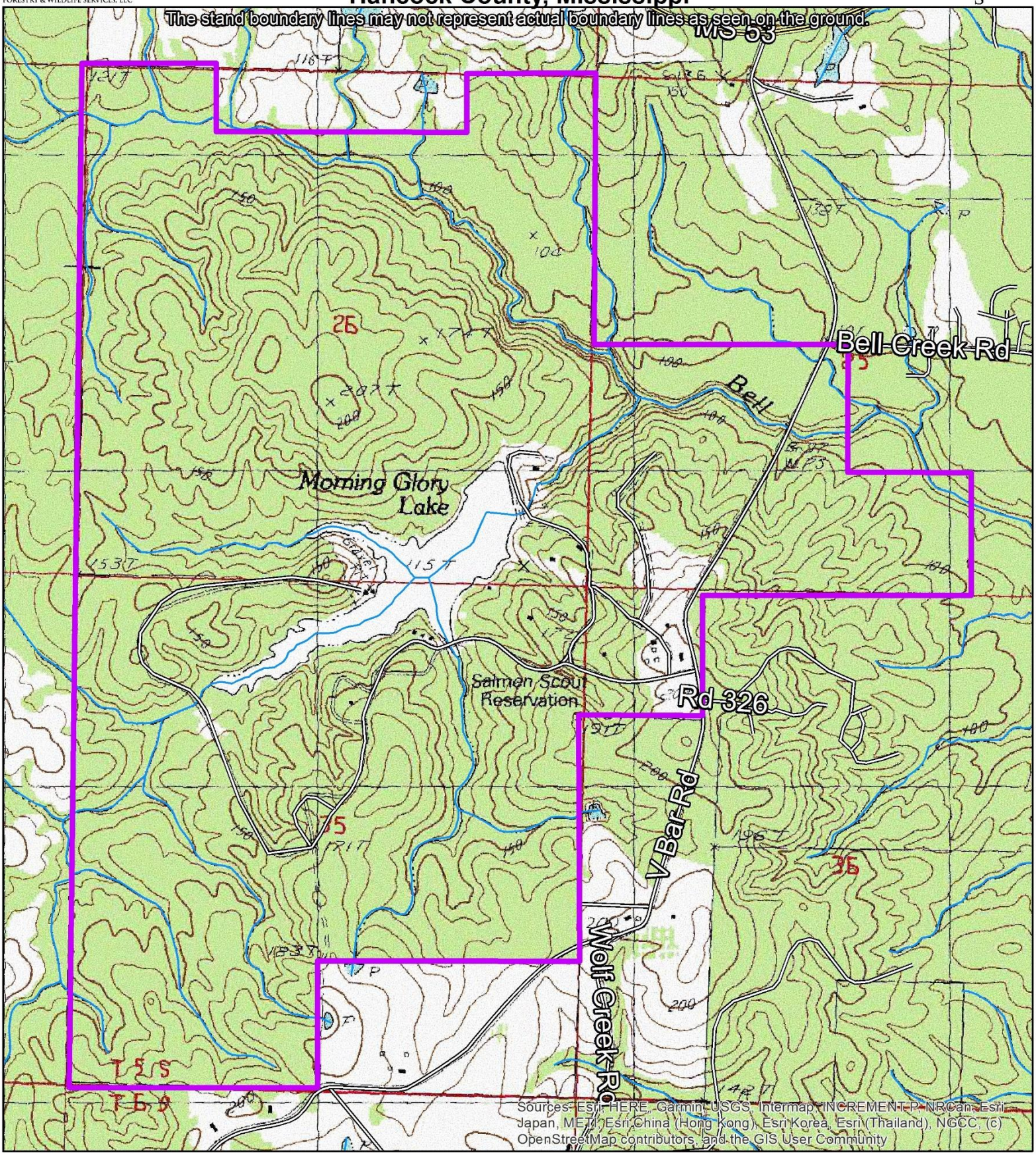
The stand boundary lines may not represent actual boundary lines as seen on the ground.



Coordinate System: NAD 1983 UTM Zone 16N
Projection: Transverse Mercator
Center Coordinates: 30.5749 -89.3605
Date: 7/8/2025 Prepared By: Jay Mitchell

1 in = 1,320 ft

0 660 1,320 1,980 2,640

Salmen_Scout_Reservation

MITCHELL
FORESTRY & WILDLIFE SERVICES, LLC

Map 3. Soil Survey Map
Salmen Scout Reservation

± 1400 Acres in Sections 25, 26, 35 & 36 of T5S & R14W of Hancock County, Mississippi

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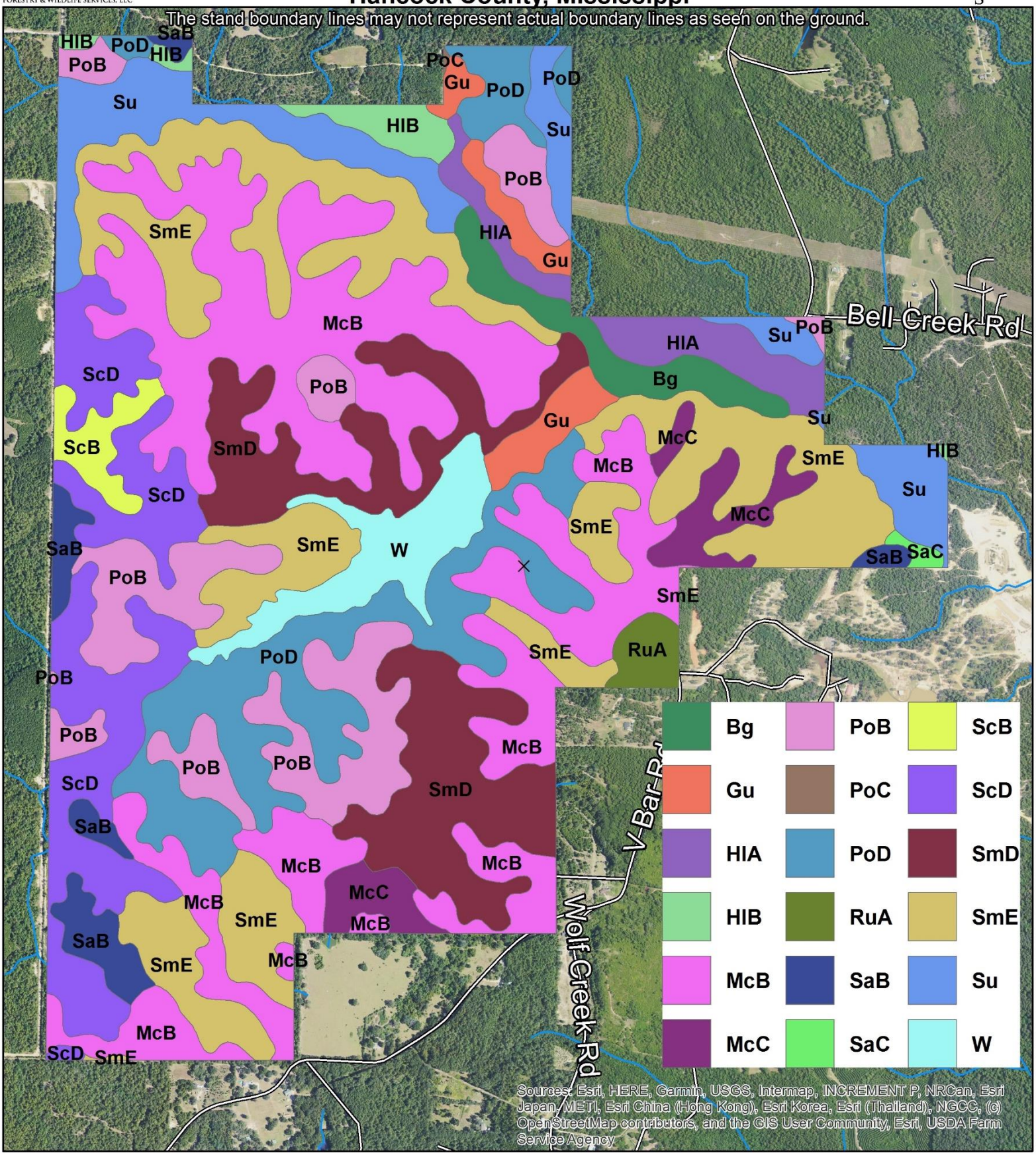
The stand boundary lines may not represent actual boundary lines as seen on the ground.



Coordinate System: NAD 1983 UTM Zone 16N
Projection: Transverse Mercator
Center Coordinates: 30.5741 -89.3597
Date: 7/8/2025 Prepared By: Jay Mitchell

1 in = 1,320 ft

0 660 1,320 1,980 2,640

MITCHELL
FORESTRY & WILDLIFE SERVICES, LLC

Map 4. Property Location Map
Salmen Scout Reservation

± 1400 Acres in Sections 25, 26, 35 & 36 of T5S & R14W of Hancock County, Mississippi

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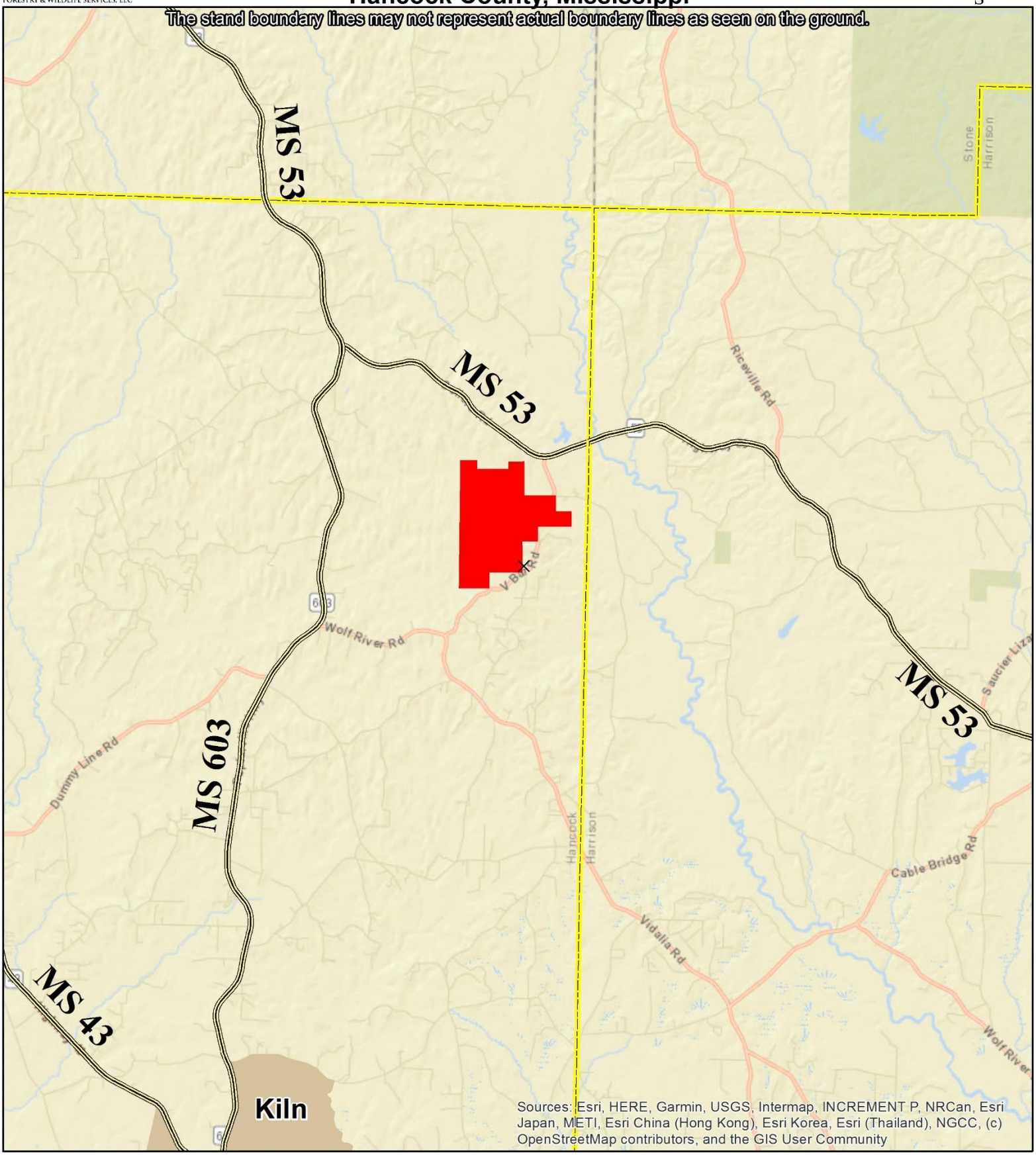
The stand boundary lines may not represent actual boundary lines as seen on the ground.



Coordinate System: NAD 1983 UTM Zone 16N
Projection: Transverse Mercator
Center Coordinates: 30.5625 -89.3594
Date: 7/8/2025 Prepared By: Jay Mitchell

1 in = 2 miles

0 5,200 10,400 15,600 20,800

Salmen_Scout_Reservation

MITCHELL
FORESTRY & WILDLIFE SERVICES, LLC

Map 5. Stand Map
Salmen Scout Reservation
± 1400 Acres in Sections 25, 26, 35 & 36 of T5S & R14W of Hancock County, Mississippi

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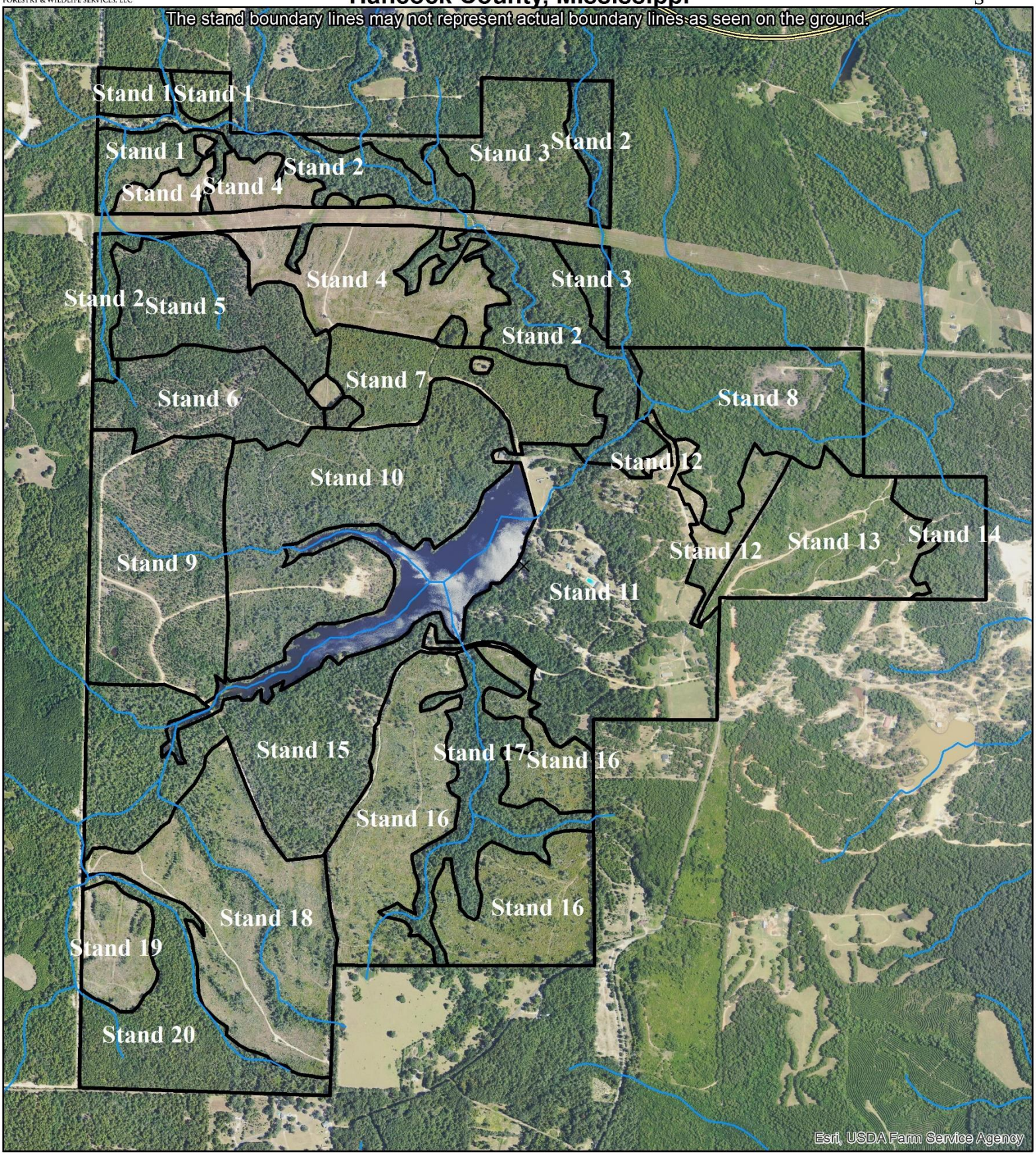
The stand boundary lines may not represent actual boundary lines as seen on the ground.



Coordinate System: NAD 1983 UTM Zone 16N
Projection: Transverse Mercator
Center Coordinates: 30.5750 -89.3610
Date: 7/8/2025 Prepared By: Jay Mitchell

1 in = 1,320 feet

0 660 1,320 1,980 2,640

MITCHELL
FORESTRY & WILDLIFE SERVICES, LLC

Map 6. Burn Area Map
Salmen Scout Reservation

± 1400 Acres in Sections 25, 26, 35 & 36 of T5S & R14W of Hancock County, Mississippi

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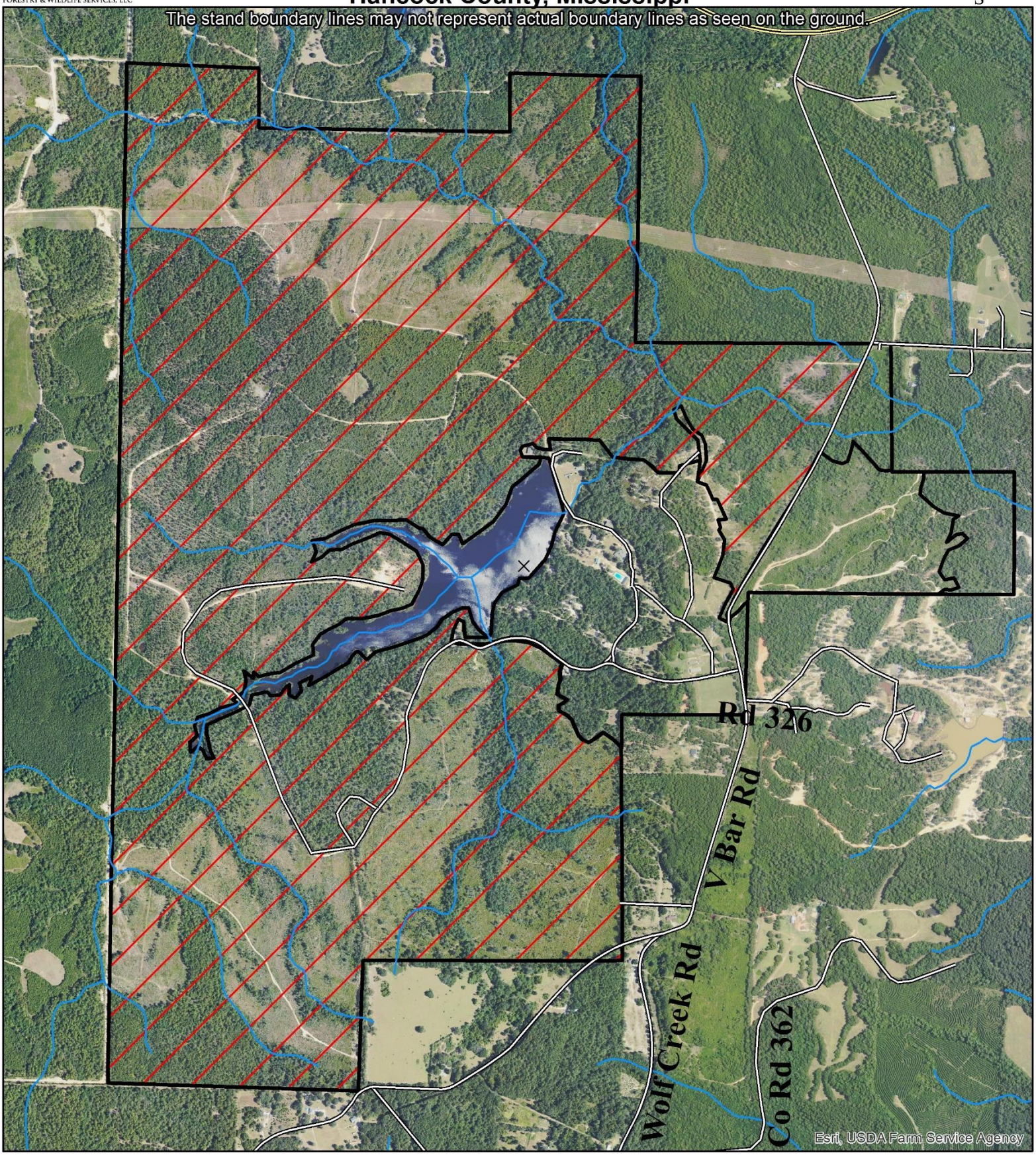

Coordinate System: NAD 1983 UTM Zone 16N
Projection: Transverse Mercator
Center Coordinates: 30.5748 -89.3619
Date: 7/23/2025 Prepared By: Jay Mitchell

1 in = 1,320 feet

0 660 1,320 1,980 2,640

MITCHELL
FORESTRY & WILDLIFE SERVICES, LLC

Map 7: Roads/Trails Map
Salmen Scout Reservation

± 1400 Acres in Sections 25, 26, 35 & 36 of T5S & R14W of Hancock County, Mississippi

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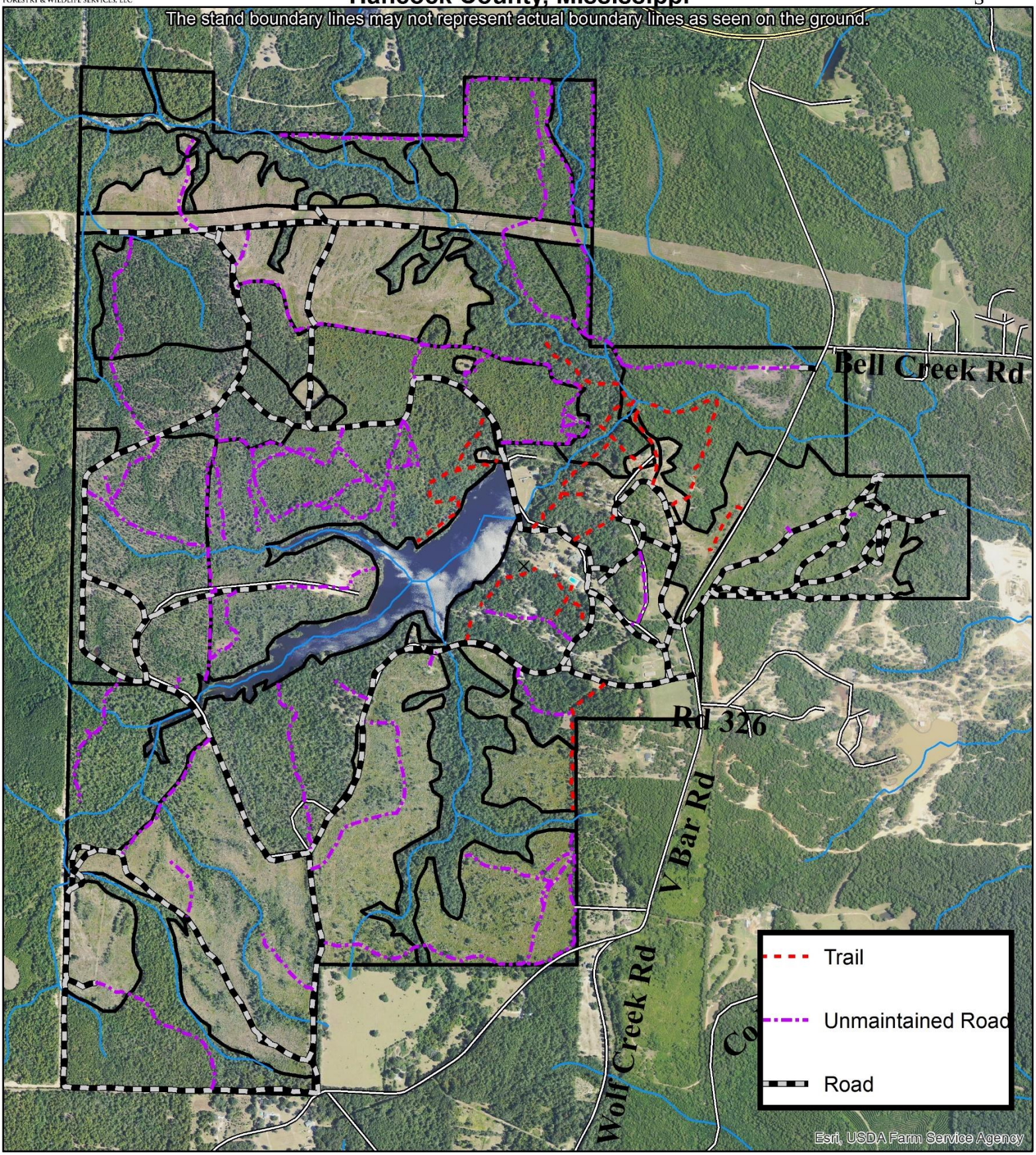
The stand boundary lines may not represent actual boundary lines as seen on the ground.



Coordinate System: NAD 1983 UTM Zone 16N
Projection: Transverse Mercator
Center Coordinates: 30.5750 -89.3604
Date: 7/24/2025 Prepared By: Jay Mitchell

1 in = 1,320 feet

0 660 1,320 1,980 2,640

MITCHELL
FORESTRY & WILDLIFE SERVICES, LLC

Map 8. Drone Flight Orthophoto Map
Salmen Scout Reservation

± 1400 Acres in Sections 25, 26, 35 & 36 of T5S & R14W of Hancock County, Mississippi

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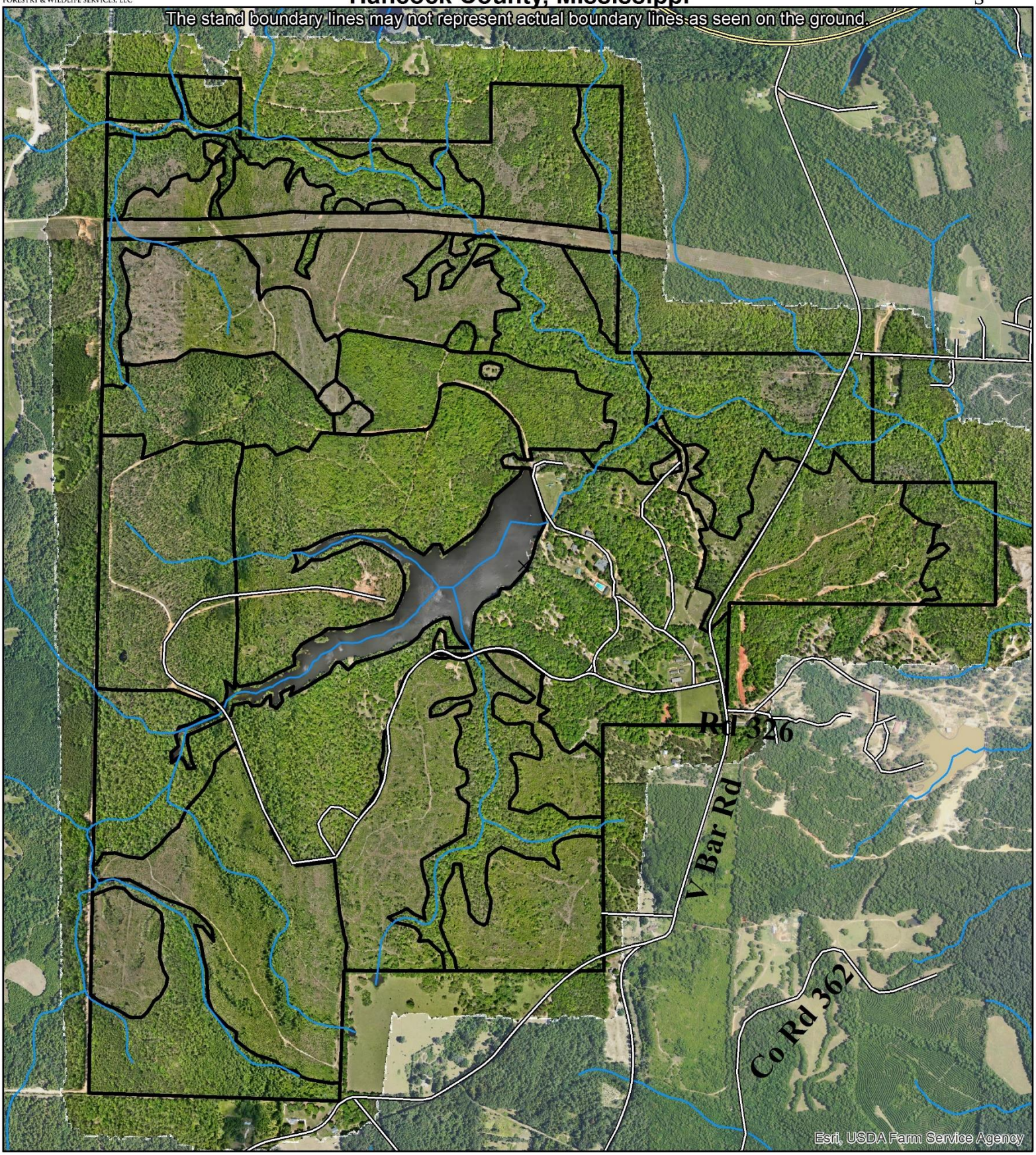
The stand boundary lines may not represent actual boundary lines as seen on the ground.



Coordinate System: NAD 1983 UTM Zone 16N
Projection: Transverse Mercator
Center Coordinates: 30.5751 -89.3613
Date: 7/24/2025 Prepared By: Jay Mitchell

1 in = 1,320 feet

0 660 1,320 1,980 2,640

Property

MITCHELL
FORESTRY & WILDLIFE SERVICES, LLC

Map 9. Developed Area Map
Salmen Scout Reservation

± 1400 Acres in Sections 25, 26, 35 & 36 of T5S & R14W of Hancock County, Mississippi

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The stand boundary lines may not represent actual boundary lines as seen on the ground.

Coordinate System: NAD 1983 UTM Zone 16N
Projection: Transverse Mercator
Center Coordinates: 30.5749 -89.3591
Date: 7/24/2025 Prepared By: Jay Mitchell

1 in = 400 feet

0 200 400 600 800

Salmen Scout Reservation

MITCHELL
FORESTRY & WILDLIFE SERVICES, LLC

Map 10. Site Prep/Planting Map
Salmen Scout Reservation

± 1400 Acres in Sections 25, 26, 35 & 36 of T5S & R14W of Hancock County, Mississippi

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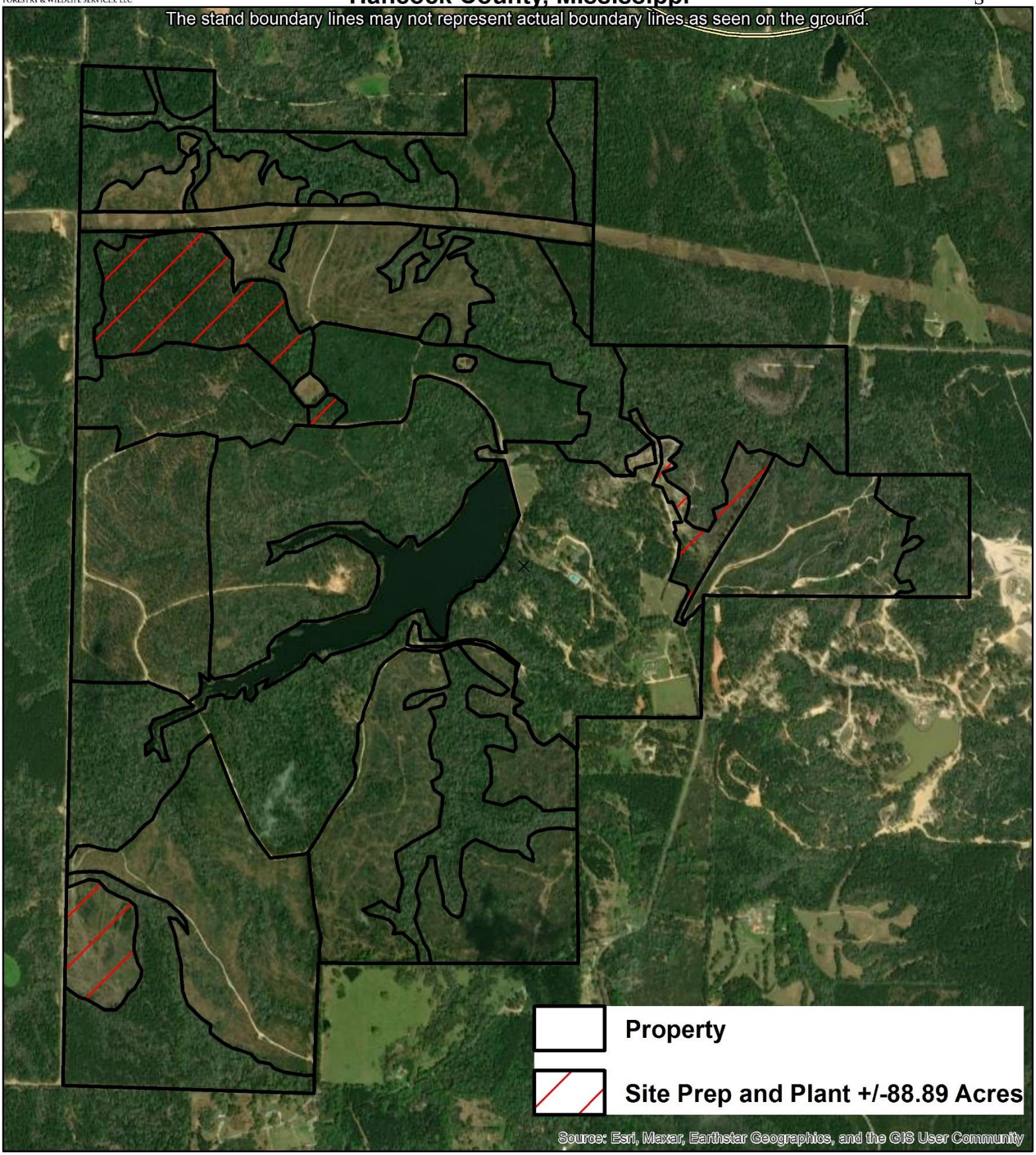
The stand boundary lines may not represent actual boundary lines as seen on the ground.



Coordinate System: NAD 1983 UTM Zone 16N
Projection: Transverse Mercator
Center Coordinates: 30.5749 -89.3604
Date: 12/19/2025 Prepared By: Jay Mitchell

1 in = 1,320 feet

0 660 1,320 1,980 2,640

Appendix B:
Soil Information

Hancock County, Mississippi

Map Unit: Bg—Bigbee-Bibb complex, frequently flooded

Component: Bigbee (45%)

The Bigbee component makes up 45 percent of the map unit. Slopes are 0 to 2 percent. This component is on terraces. The parent material consists of sandy alluvium deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 57 inches during January, February, March. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 5w. This soil does not meet hydric criteria.

Component: Bibb (40%)

The Bibb component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains. The parent material consists of sandy and loamy alluvium deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 9 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Harleston (9%)

Generated brief soil descriptions are created for major soil components. The Harleston soil is a minor component.

Map Unit: Gu—Guyton silt loam, 0 to 1 percent slopes, rarely flooded

Component: Guyton (90%)

The Guyton component makes up 90 percent of the map unit. Slopes are 0 to 1 percent. This component is on flood-plain steps, fluviomarine terraces. The parent material consists of late Plisetocene age terraces with loamy alluvium derived from sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is very high. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 9 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 2 percent. This component is in the F152AY100LA Western Silty Flat ecological site. Nonirrigated land capability classification is 3w. This soil meets hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Myatt (4%)

Generated brief soil descriptions are created for major soil components. The Myatt soil is a minor component.

Component: Abita (4%)

Generated brief soil descriptions are created for major soil components. The Abita soil is a minor component.

Component: Stough (2%)

Generated brief soil descriptions are created for major soil components. The Stough soil is a minor component.

Map Unit: HlA—Harleston fine sandy loam, 0 to 2 percent slopes

Component: Harleston (85%)

The Harleston component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on stream terraces, coastal plains. The parent material consists of loamy alluvium derived from sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 22 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 2 percent. This component is in the F152AY010AL West Central Loamy Flat ecological site. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Bibb (5%)

Generated brief soil descriptions are created for major soil components. The Bibb soil is a minor component.

Component: Stough (5%)

Generated brief soil descriptions are created for major soil components. The Stough soil is a minor component.

Component: Smithton (5%)

Generated brief soil descriptions are created for major soil components. The Smithton soil is a minor component.

Map Unit: HlB—Harleston fine sandy loam, 2 to 5 percent slopes

Component: Harleston (85%)

The Harleston component makes up 85 percent of the map unit. Slopes are 2 to 5 percent. This component is on marine terraces on coastal plains. The parent material consists of loamy alluvium derived from sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 22 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 2 percent. This component is in the F152AY010AL West Central Loamy Flat ecological site. Nonirrigated land capability classification is 2w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Bibb (7%)

Generated brief soil descriptions are created for major soil components. The Bibb soil is a minor component.

Component: Stough (4%)

Generated brief soil descriptions are created for major soil components. The Stough soil is a minor component.

Component: Smithton (4%)

Generated brief soil descriptions are created for major soil components. The Smithton soil is a minor component.

Map Unit: McB—McLaurin fine sandy loam, 2 to 5 percent slopes

Component: McLaurin (85%)

The McLaurin component makes up 85 percent of the map unit. Slopes are 2 to 5 percent. This component is on fluviomarine terraces, coastal plains. The parent material consists of loamy fluviomarine deposits derived from sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Smithdale (10%)

Generated brief soil descriptions are created for major soil components. The Smithdale soil is a minor component.

Component: Benndale (5%)

Generated brief soil descriptions are created for major soil components. The Benndale soil is a minor component.

Map Unit: McC—McLaurin fine sandy loam, 5 to 8 percent slopes

Component: McLaurin (85%)

The McLaurin component makes up 85 percent of the map unit. Slopes are 5 to 8 percent. This component is on fluviomarine terraces, coastal plains. The parent material consists of loamy fluviomarine deposits derived from sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Smithdale (10%)

Generated brief soil descriptions are created for major soil components. The Smithdale soil is a minor component.

Component: Benndale (5%)

Generated brief soil descriptions are created for major soil components. The Benndale soil is a minor component.

Map Unit: PoB—Poarch fine sandy loam, 2 to 5 percent slopes

Component: Poarch (85%)

The Poarch component makes up 85 percent of the map unit. Slopes are 2 to 5 percent. This component is on fluviomarine terraces, coastal plains. The parent material consists of loamy fluviomarine deposits derived from sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches during January, February, March, April, December. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Escambia (5%)

Generated brief soil descriptions are created for major soil components. The Escambia soil is a minor component.

Component: Malbis (5%)

Generated brief soil descriptions are created for major soil components. The Malbis soil is a minor component.

Component: Harleston (5%)

Generated brief soil descriptions are created for major soil components. The Harleston soil is a minor component.

Map Unit: PoC—Poarch fine sandy loam, 5 to 8 percent slopes

Component: Poarch (85%)

The Poarch component makes up 85 percent of the map unit. Slopes are 5 to 8 percent. This component is on hillslopes. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches during January, February, March, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Smithton (7%)

Generated brief soil descriptions are created for major soil components. The Smithton soil is a minor component.

Component: Harleston (4%)

Generated brief soil descriptions are created for major soil components. The Harleston soil is a minor component.

Component: Escambia (4%)

Generated brief soil descriptions are created for major soil components. The Escambia soil is a minor component.

Map Unit: PoD—Poarch fine sandy loam, 8 to 12 percent slopes

Component: Poarch (85%)

The Poarch component makes up 85 percent of the map unit. Slopes are 8 to 12 percent. This component is on hillslopes. The parent material consists of sandy and loamy marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 45 inches during January, February, March, December. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.

Component: Smithton (7%)

Generated brief soil descriptions are created for major soil components. The Smithton soil is a minor component.

Component: Eustis (4%)

Generated brief soil descriptions are created for major soil components. The Eustis soil is a minor component.

Component: Saucier (4%)

Generated brief soil descriptions are created for major soil components. The Saucier soil is a minor component.

Map Unit: RuA—Ruston fine sandy loam, 0 to 2 percent slopes

Component: Ruston (85%)

The Ruston component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on dissected fluviomarine terraces, coastal plains. The parent material consists of loamy fluviomarine deposits derived from sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 1. Irrigated land capability classification is 1. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: McLaurin (5%)

Generated brief soil descriptions are created for major soil components. The McLaurin soil is a minor component.

Component: Smithdale (5%)

Generated brief soil descriptions are created for major soil components. The Smithdale soil is a minor component.

Component: Ora (3%)

Generated brief soil descriptions are created for major soil components. The Ora soil is a minor component.

Component: Myatt (2%)

Generated brief soil descriptions are created for major soil components. The Myatt soil is a minor component.

Map Unit: SaB—Saucier fine sandy loam, 2 to 5 percent slopes

Component: Saucier (80%)

The Saucier component makes up 80 percent of the map unit. Slopes are 2 to 5 percent. This component is on fluviomarine terraces, coastal plains. The parent material consists of loamy fluviomarine deposits over clayey fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, April. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Atmore (5%)

Generated brief soil descriptions are created for major soil components. The Atmore soil is a minor component.

Component: Escambia (5%)

Generated brief soil descriptions are created for major soil components. The Escambia soil is a minor component.

Component: Malbis (5%)

Generated brief soil descriptions are created for major soil components. The Malbis soil is a minor component.

Component: Poarch (5%)

Generated brief soil descriptions are created for major soil components. The Poarch soil is a minor component.

Map Unit: SaC—Saucier fine sandy loam, 5 to 8 percent slopes

Component: Saucier (85%)

The Saucier component makes up 85 percent of the map unit. Slopes are 5 to 8 percent. This component is on fluviomarine terraces, coastal plains. The parent material consists of loamy over clayey fluviomarine deposits derived from sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Malbis (6%)

Generated brief soil descriptions are created for major soil components. The Malbis soil is a minor component.

Component: Escambia (4%)

Generated brief soil descriptions are created for major soil components. The Escambia soil is a minor component.

Component: Susquehanna (3%)

Generated brief soil descriptions are created for major soil components. The Susquehanna soil is a minor component.

Component: Atmore (2%)

Generated brief soil descriptions are created for major soil components. The Atmore soil is a minor component.

Map Unit: ScB—Saucier-Susquehanna complex, 2 to 5 percent slopes

Component: Saucier (50%)

The Saucier component makes up 50 percent of the map unit. Slopes are 2 to 5 percent. This component is on fluviomarine terraces, coastal plains. The parent material consists of loamy over clayey fluviomarine deposits derived from sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 24 inches during January, February, March. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Susquehanna (35%)

The Susquehanna component makes up 35 percent of the map unit. Slopes are 2 to 5 percent. This component is on erosional uplands fluviomarine terraces on coastal plains. The parent material consists of silty clay fluviomarine deposits over clayey fluviomarine deposits derived from sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is very high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Atmore (5%)

Generated brief soil descriptions are created for major soil components. The Atmore soil is a minor component.

Component: Malbis (5%)

Generated brief soil descriptions are created for major soil components. The Malbis soil is a minor component.

Component: Poarch (5%)

Generated brief soil descriptions are created for major soil components. The Poarch soil is a minor component.

Map Unit: ScD—Saucier-Susquehanna complex, 5 to 12 percent slopes

Component: Saucier (45%)

The Saucier component makes up 45 percent of the map unit. Slopes are 5 to 12 percent. This component is on coastal plains. The parent material consists of loamy over clayey marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 39 inches during January, February, March. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.

Component: Susquehanna (30%)

The Susquehanna component makes up 30 percent of the map unit. Slopes are 5 to 12 percent. This component is on coastal plains. The parent material consists of clayey marine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria.

Component: Ruston (3%)

Generated brief soil descriptions are created for major soil components. The Ruston soil is a minor component.

Component: Escambia (3%)

Generated brief soil descriptions are created for major soil components. The Escambia soil is a minor component.

Component: Smithton (3%)

Generated brief soil descriptions are created for major soil components. The Smithton soil is a minor component.

Component: Poarch (3%)

Generated brief soil descriptions are created for major soil components. The Poarch soil is a minor component.

Map Unit: SmD—Smithdale fine sandy loam, 8 to 12 percent slopes

Component: Smithdale (85%)

The Smithdale component makes up 85 percent of the map unit. Slopes are 8 to 12 percent. This component is on hillslopes on uplands. The parent material consists of thick beds of loamy fluviomarine deposits. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Ruston (9%)

Generated brief soil descriptions are created for major soil components. The Ruston soil is a minor component.

Component: Rutan (3%)

Generated brief soil descriptions are created for major soil components. The Rutan soil is a minor component.

Component: Bibb (3%)

Generated brief soil descriptions are created for major soil components. The Bibb soil is a minor component.

Map Unit: SmE—Smithdale fine sandy loam, 12 to 17 percent slopes

Component: Smithdale (85%)

The Smithdale component makes up 85 percent of the map unit. Slopes are 12 to 17 percent. This component is on dissected fluviomarine terraces, coastal plains. The parent material consists of loamy fluviomarine deposits derived from sedimentary rock. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6e. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface.

Component: Rutan (6%)

Generated brief soil descriptions are created for major soil components. The Rutan soil is a minor component.

Component: Wadley (4%)

Generated brief soil descriptions are created for major soil components. The Wadley soil is a minor component.

Component: Boykin (3%)

Generated brief soil descriptions are created for major soil components. The Boykin soil is a minor component.

Component: Bibb (2%)

Generated brief soil descriptions are created for major soil components. The Bibb soil is a minor component.

Map Unit: Su—Smithton fine sandy loam, frequently flooded

Component: Smithton (85%)

The Smithton component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on terraces. The parent material consists of loamy alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during January, February, March, April, May, December. Organic matter content in the

surface horizon is about 2 percent. Nonirrigated land capability classification is 5w. This soil meets hydric criteria.

Component: Plummer (6%)

Generated brief soil descriptions are created for major soil components. The Plummer soil is a minor component.

Component: Atmore (3%)

Generated brief soil descriptions are created for major soil components. The Atmore soil is a minor component.

Component: Guyton (3%)

Generated brief soil descriptions are created for major soil components. The Guyton soil is a minor component.

Component: Harleston (3%)

Generated brief soil descriptions are created for major soil components. The Harleston soil is a minor component.

Map Unit: W—Water

Component: Water (100%)

Generated brief soil descriptions are created for major soil components. The Water is a miscellaneous area.

Table 2. Soil potential productivity on Scout Reservation Property in Hancock County, Mississippi

Report — Forestland Productivity with Site Index Base				
Hancock County, Mississippi				
Map unit symbol and soil name	**Common trees**	**Site Index**	**Base Age**	**Volume Growth Rate (CMAI)**
		ft	*yrs*	*cu ft/ac/yr*
Bg—Bigbee-Bibb complex, frequently flooded				
Bigbee	loblolly pine	88	—	129
Bibb	Atlantic white cedar	—	—	0
	blackgum	—	—	0
	loblolly pine	100	—	157
	sweetgum	90	—	100
	water oak	90	—	86
	yellow poplar	—	—	0
Gu—Guyton silt loam, 0 to 1 percent slopes, rarely flooded				
Guyton	loblolly pine	85	50 TA	114
	slash pine	90	50 TA	157
	willow oak	78	50 TA	72
HlA—Harleston fine sandy loam, 0 to 2 percent slopes				
Harleston	loblolly pine	90	50 TA	129
	shortleaf pine	80	50 TA	129
	sweetgum	75	50 TA	72
HlB—Harleston fine sandy loam, 2 to 5 percent slopes				
Harleston	loblolly pine	90	—	129
	shortleaf pine	80	—	129
	sweetgum	75	—	72
McB—McLaurin fine sandy loam, 2 to 5 percent slopes				
McLaurin	loblolly pine	90	—	129
	longleaf pine	80	—	86
	slash pine	90	—	157
McC—McLaurin fine sandy loam, 5 to 8 percent slopes				
McLaurin	loblolly pine	90	—	129
	longleaf pine	80	—	86
	slash pine	90	—	157
PoB—Poarch fine sandy loam, 2 to 5 percent slopes				
Poarch	loblolly pine	90	—	129
	longleaf pine	73	—	86
	slash pine	90	—	157
PoC—Poarch fine sandy loam, 5 to 8 percent slopes				
Poarch	loblolly pine	90	—	129
	longleaf pine	73	—	86
	slash pine	90	—	157
PoD—Poarch fine sandy loam, 8 to 12 percent slopes				
Poarch	loblolly pine	90	—	129
	longleaf pine	73	—	86
	slash pine	90	—	157

Report — Forestland Productivity with Site Index Base				
Hancock County, Mississippi				
Map unit symbol and soil name	**Common trees**	**Site Index**	**Base Age**	**Volume Growth Rate (CMAI)**
RuA—Ruston fine sandy loam, 0 to 2 percent slopes				
Ruston	hickory	80	—	0
	loblolly pine	91	—	129
	longleaf pine	76	—	86
	post oak	84	—	0
	slash pine	91	—	172
	southern red oak	82	—	0
	sweetgum	85	—	0
SaB—Saucier fine sandy loam, 2 to 5 percent slopes				
Saucier	loblolly pine	80	—	114
	longleaf pine	60	—	57
	slash pine	80	—	143
SaC—Saucier fine sandy loam, 5 to 8 percent slopes				
Saucier	loblolly pine	80	—	114
	longleaf pine	60	—	57
	slash pine	80	—	143
ScB—Saucier-Susquehanna complex, 2 to 5 percent slopes				
Saucier	loblolly pine	80	—	114
	longleaf pine	60	—	57
	slash pine	80	—	143
Susquehanna	loblolly pine	78	—	114
	shortleaf pine	68	—	100
ScD—Saucier-Susquehanna complex, 5 to 12 percent slopes				
Saucier	loblolly pine	80	—	114
	longleaf pine	60	—	57
	slash pine	80	—	143
Susquehanna	loblolly pine	78	—	114
	shortleaf pine	68	—	100
SmD—Smithdale fine sandy loam, 8 to 12 percent slopes				
Smithdale	loblolly pine	86	50 TA	129
	longleaf pine	69	50 TA	72
	slash pine	85	50 TA	157
SmE—Smithdale fine sandy loam, 12 to 17 percent slopes				
Smithdale	loblolly pine	85	50 TA	129
	longleaf pine	75	50 TA	100
	shortleaf pine	65	50 TA	—
	slash pine	80	50 TA	157
Su—Smithton fine sandy loam, frequently flooded				
Smithton	cherrybark oak	85	—	100
	loblolly pine	86	—	129
	shortleaf pine	76	—	114
	sweetgum	86	—	100
	water oak	85	—	86
W—Water				
Water	—	—	—	—

Table 3. Planting and Harvesting potential on Scout Reservation Property in Hancock County, Mississippi

Forestland Planting and Harvesting							
Hancock County, Mississippi							
Map symbol and soil name	Pct. of map unit	Suitability for hand		Suitability for use of		Suitability for	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
W—Water							
Water	100	Not rated		Not rated		Not rated	
Gu—Guyton silt loam, 0 to 1 percent slopes, rarely flooded							
Guyton	90	Well suited		Moderately suited		Well suited	
				Low strength	0.5		
				Dusty	0.07		
HlA—Harleston fine sandy loam, 0 to 2 percent slopes							
Harleston	85	Well suited		Well suited		Well suited	
				Dusty	0.01		
HlB—Harleston fine sandy loam, 2 to 5 percent slopes							
Harleston	85	Well suited		Well suited		Well suited	
				Dusty	0.02		
McB—McLaurin fine sandy loam, 2 to 5 percent slopes							
Mclaurin	85	Well suited		Well suited		Well suited	
				Dusty	0.01		
McC—McLaurin fine sandy loam, 5 to 8 percent slopes							
Mclaurin	85	Well suited		Well suited		Moderately suited	
				Dusty	0.01	Slope	0.04
PoC—Poarch fine sandy loam, 5 to 8 percent slopes							
Poarch	85	Well suited		Well suited		Moderately suited	
				Dusty	0.02	Slope	0.11
PoD—Poarch fine sandy loam, 8 to 12 percent slopes							
Poarch	85	Well suited		Well suited		Moderately suited	
				Dusty	0.02	Slope	0.4
PoB—Poarch fine sandy loam, 2 to 5 percent slopes							
Poarch	85	Well suited		Well suited		Well suited	
				Dusty	0.02		
RuA—Ruston fine sandy loam, 0 to 2 percent slopes							
Ruston	85	Well suited		Well suited		Well suited	
				Dusty	0.01		

Forestland Planting and Harvesting							
Hancock County, Mississippi							
Map symbol and soil name	**Pct. of map unit**	**Suitability for hand**		**Suitability for use of**		**Suitability for**	
		Rating class and limiting features	**Value**	**Rating class and limiting features**	**Value**	**Rating class and limiting features**	**Value**
SaC—Saucier fine sandy loam, 5 to 8 percent slopes							
Saucier	85	Well suited		Well suited		Moderately suited	
				Dusty	0.02	Slope	0.11
SmD—Smithdale fine sandy loam, 8 to 12 percent slopes							
Smithdale	85	Well suited		Well suited		Moderately suited	
				Dusty	0.01	Slope	0.4
SmE—Smithdale fine sandy loam, 12 to 17 percent slopes							
Smithdale	85	Well suited		Well suited		Poorly suited	
				Dusty	0.01	Slope	0.7
Su—Smithton fine sandy loam, frequently flooded							
Smithton	85	Well suited		Well suited		Well suited	
				Dusty	0.01		
SaB—Saucier fine sandy loam, 2 to 5 percent slopes							
Saucier	80	Well suited		Well suited		Well suited	
				Dusty	0.02		
ScB—Saucier-Susquehanna complex, 2 to 5 percent slopes							
Saucier	50	Well suited		Well suited		Well suited	
				Dusty	0.02		
Bg—Bigbee-Bibb complex, frequently flooded							
Bigbee	45	Well suited		Well suited		Well suited	
ScD—Saucier-Susquehanna complex, 5 to 12 percent slopes							
Saucier	45	Well suited		Moderately suited		Moderately suited	
				Low strength	0.5	Slope	0.3
				Dusty	0.02		
Bg—Bigbee-Bibb complex, frequently flooded							
Bibb	40	Well suited		Moderately suited		Well suited	
				Low strength	0.5		
				Dusty	0.05		
ScB—Saucier-Susquehanna complex, 2 to 5 percent slopes							
Susquehanna	35	Poorly suited		Well suited		Poorly suited	
		Stickiness; high plasticity index	0.75	Dusty	0.05	Stickiness; high plasticity index	0.75
ScD—Saucier-Susquehanna complex, 5 to 12 percent slopes							
Susquehanna	30	Poorly suited		Moderately suited		Poorly suited	
		Stickiness; high plasticity index	0.75	Low strength	0.5	Stickiness; high plasticity index	0.75
				Dusty	0.04	Slope	0.3

Table 4. Haul Road, Log Landings, and Soil Rutting.

Haul Roads, Log Landings, and Soil Rutting on Forestland			
Hancock County, Mississippi			
Map symbol and soil name	**Pct. of map unit**	**FOR - Construction Limitations for Haul Roads/Log Landings**	
		Rating class and limiting features	**Value**
Bg—Bigbee-Bibb complex, frequently flooded			
Bigbee	45	Severe	
		Flooding	1
Bibb	40	Severe	
		Flooding	1
		Low strength	0.5
		Dusty	0.05
Gu—Guyton silt loam, 0 to 1 percent slopes, rarely flooded			
Guyton	90	Moderate	
		Low strength	0.5
		Dusty	0.07
HlA—Harleston fine sandy loam, 0 to 2 percent slopes			
Harleston	85	Slight	
		Dusty	0.01
HlB—Harleston fine sandy loam, 2 to 5 percent slopes			
Harleston	85	Slight	
		Dusty	0.02
McB—McLaurin fine sandy loam, 2 to 5 percent slopes			
Mclaurin	85	Slight	
		Dusty	0.01
McC—McLaurin fine sandy loam, 5 to 8 percent slopes			
Mclaurin	85	Slight	
		Dusty	0.01
PoB—Poarch fine sandy loam, 2 to 5 percent slopes			
Poarch	85	Slight	
		Dusty	0.02
PoC—Poarch fine sandy loam, 5 to 8 percent slopes			
Poarch	85	Slight	
		Dusty	0.02
PoD—Poarch fine sandy loam, 8 to 12 percent slopes			

Haul Roads, Log Landings, and Soil Rutting on Forestland			
Hancock County, Mississippi			
Map symbol and soil name	**Pct. of map unit**	**FOR - Construction Limitations for Haul Roads/Log**	
		Rating class and limiting features	**Value**
Poarch	85	Slight	
		Dusty	0.02
RuA—Ruston fine sandy loam, 0 to 2 percent slopes			
Ruston	85	Slight	
		Dusty	0.01
SaB—Saucier fine sandy loam, 2 to 5 percent slopes			
Saucier	80	Slight	
		Dusty	0.02
SaC—Saucier fine sandy loam, 5 to 8 percent slopes			
Saucier	85	Slight	
		Dusty	0.02
ScB—Saucier-Susquehanna complex, 2 to 5 percent slopes			
Saucier	50	Slight	
		Dusty	0.02
Susquehanna	35	Slight	
		Dusty	0.05
ScD—Saucier-Susquehanna complex, 5 to 12 percent slopes			
Saucier	45	Moderate	
		Low strength	0.5
		Dusty	0.02
Susquehanna	30	Moderate	
		Low strength	0.5
		Dusty	0.04
SmD—Smithdale fine sandy loam, 8 to 12 percent slopes			
Smithdale	85	Slight	
		Landslides	0.05
		Dusty	0.01
SmE—Smithdale fine sandy loam, 12 to 17 percent slopes			
Smithdale	85	Moderate	
		Slope	0.5
		Dusty	0.01
Su—Smithton fine sandy loam, frequently flooded			
Smithton	85	Severe	
		Flooding	1
		Dusty	0.01
W—Water			
Water	100	Not rated	

Appendix C:
Ten Year Schedule of Activities

Schedule of Activities

This is an addition to the Salmen Scout Reservation management plan that consists of a schedule of activities for general planning purposes and an income/expense estimate of each activity (Income to be determined from timber cruise on recommended stands). The purpose of the schedule of activities is to provide you with a 'road map' to achieving the management goals discussed in the management plan. Please keep in mind the costs in this schedule subject to change from year to year. Income estimates will be based on gross income from the sales and do not include any fees from timber sales. Market average pricing will be applied for the value estimates in the appraisal. Mitchell Forestry's goal is to obtain the best prices possible by creating competition amongst buyers and finding the buyer with the greatest need for the products you have. It is imperative that you never discuss the determined timber values with anyone. The timber purchasing community is very broad and almost everybody knows someone who is associated with the timber industry in some way. Revealing any timber values to outside parties could have an extremely negative effect on the income you are ultimately able to obtain for the timber.

Also keep in mind this schedule is made up of recommendations which will bring your property to the desired state in the timeliest manner possible. It may not necessarily be the order or speed in which you choose to go and the plans can be altered accordingly. **Our goal is to provide you with the best possible recommendations to accomplish your goals. We understand that your goals may change over time due to various issues that may arise. When and if this occurs, we will proceed in the manner in which you desire**. The schedule of activities only extends throughout the next ten-year period. The plans should be reevaluated and updated at the end of this ten-year period. The schedule is in chart form at the end of this

section and is labeled as Table 5. – 'Ten Year Schedule of Activities'. Cost assumptions used in the table are as follows:

- Aerial Chemical Site Preparation - $110.00/acre
- Hand Planting and Labor containerized Longleaf Seedlings - $200.00/acre
- Prescribed Burning - $40.00/acre
- Site Prep Burning - $45.00/acre

Table 5. Ten Year Schedule of Activities for Salmen Scout Reservation Property. (2025-2035)

Year	Season	Stand	Activity	*Cost/Income	Income	Cost
2025	Fall	15 (West of Rd)	Clear Cut +/-45 Acres	$ TBD	$ TBD	$ TBD
2025	Winter	Excluding 11,13,14	Prescribed burn +/-550 acres (338) Firebreaks (394)	$20,000.00		$20,000.00
2026	Spring	Excluding 11,13,14	Prescribed burn +/-550 acres (338) Firebreaks (394)	$20,000.00		$20,000.00
2026	Summer/Fall	15 (West of Rd)	Site Prep Herbicide +/-45 Acres (490)	$4,950.00		$4,950.00
2026	Winter	15 (West of Rd)	Site Prep Burn +/-45 Acres (338) Firebreaks (394)	$2,025.00		$2,025.00
2026	Winter	3,4,8,6,7,9,10,13	Prescribed burn +/- 275 Acres (338) Firebreaks (394)	$11,000.00		$11,000.00
2027	Spring	15 (West of Rd)	Plant Longleaf Seedlings +/-45 Acres (612)	$9,000.00		$9,000.00
2027	Spring	15,16,17,18,20	Prescribed burn +/- 275 Acres (338) Firebreaks (394)	$11,000.00		$11,000.00
2027	Summer	20	Clear Cut +/-52 Acres	$ TBD	$ TBD	$ TBD
2028	Spring	3,4,8,6,7,9,10,13	Prescribed burn +/- 275 Acres (338) Firebreaks (394)	$11,000.00		$11,000.00
2028	Summer/Fall	20	Site Prep Herbicide +/-52 Acres (490)	$5,720.00		$5,720.00
2028	Winter	3,4,8,6,7,9,10,13	Prescribed burn +/- 275 Acres (338) Firebreaks (394)	$11,000.00		$11,000.00
2028	Winter	20	Site Prep Burn +/-52 Acres (338) Firebreaks (394)	$2,340.00		$2,340.00
2029	Spring	20	Plant Longleaf Seedlings +/-52 Acres (612)	$10,400.00		$10,400.00
2029	Spring	15,16,17,18,20	Prescribed burn +/- 275 Acres (338) Firebreaks (394)	$11,000.00		$11,000.00
2030	Fall	8	Clear Cut +/-66 Acres	$ TBD	$ TBD	$ TBD
2030	Winter	15,16,17,18,20	Prescribed burn +/- 275 Acres (338) Firebreaks (394)	$11,000.00		$11,000.00
2031	Spring	3,4,8,6,7,9,10,13	Prescribed burn +/-275 acres (338) Firebreaks (394)	$11,000.00		$11,000.00
2031	Summer/Fall	8	Site Prep Herbicide +/-66 Acres (490)	$7,260.00		$7,260.00
2031	Winter	8	Site Prep burn +/-66 Acres (338) Firebreaks (394)	$2,970.00		$2,970.00
2032	Spring	8	Plant Longleaf Seedlings +/-66 Acres (612)	$13,200.00		$13,200.00
2032	Winter	3,4,8,6,7,9,10,13	Prescribed burn +/- 275 Acres (338) Firebreaks (394)	$11,000.00		$11,000.00
2033	Spring	15,16,17,18,20	Prescribed burn +/-275 acres (338) Firebreaks (394)	$11,000.00		$11,000.00
2033	Summer	1 and 15(East of Rd)	Clear Cut +/-31 Acres and +/-56 Acres	$ TBD	$ TBD	$ TBD
2033	Winter	15,16,17,18,20	Prescribed burn +/-275 acres (338) Firebreaks (394)	$11,000.00		$11,000.00
2034	Spring	3,4,8,6,7,9,10,13	Prescribed burn +/-275 acres (338) Firebreaks (394)	$11,000.00		$11,000.00
2034	Summer/Fall	1 and 15(East of Rd)	Site Prep Herbicide +/-31 and +/-56 Acres (490)	$9,570.00		$9,570.00
2034	Winter	1 and 15(East of Rd)	Site Prep burn +/-31 and +/-56 Acres (338) Firebreaks (394)	$3,915.00		$3,915.00
2035	Spring	1 and 15(East of Rd)	Plant Longleaf Seedlings +/-31 Acres and +/-56 Acres (612)	$17,400.00		$17,400.00
2035	Spring	3,4,8,6,7,9,10,13	Prescribed burn +/-275 acres (338) Firebreaks (394)	$11,000.00		$11,000.00

***All costs are related to pine stand establishment and maintenance activities including site preparation, planting, and burning. It should be noted that every effort will be made to obtain cost-share assistance from every available source in order to offset the cost of these activities.**

***All timber sales dates are estimated and the key consideration in making a sale should be favorable timber market prices.**

Note: Projected income from timber sales to be determined by timber cruise and appraisal.

Appendix D:
Information Sheets

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Biology, Ecology, and Control of Cogongrass [*Imperata cylindrica* (L.) Beauv.]

FACT SHEET NO. 1999-01

Field of cogongrass

Off-set midriff on leaf

Immature seedhead

Mature seedhead

INTRODUCTION AND DISTRIBUTION

Cogongrass has several common names, including japgrass, Japanese bloodgrass, Red Baron, or speargrass but its scientific name is ***Imperata cylindrica*** (L.) Beauv. (Incl. ***I. brasiliensis*** Trin.). This grassy weed spreads by seed and vegetatively. Cogongrass produces numerous underground horizontal stems, or rhizomes, which are capable of rooting at each node and producing a new stem. These rhizomes are viable, but remain dormant during winter and produce new plants the next spring. Cogongrass has been designated as the seventh worst weed in the world (6). It is native to tropical and subtropical areas of the eastern hemisphere (1, 7). Cogongrass was both accidentally and purposely introduced into the southern United States in the teens and early 1920's into Alabama, Florida, and Mississippi (2, 5, 9). Many farmers planted cogongrass for pastures and erosion control. Cogongrass was not a good livestock feed and it was too weedy for erosion control (6). Unfortunately, cogongrass with reddish to maroon foliage is still sold by some nurseries as an ornamental grass called Japanese bloodgrass or 'Red Baron' bloodgrass. Unsuspecting homeowners discover that the red color vanishes and that cogongrass spreads into other areas of the landscape.

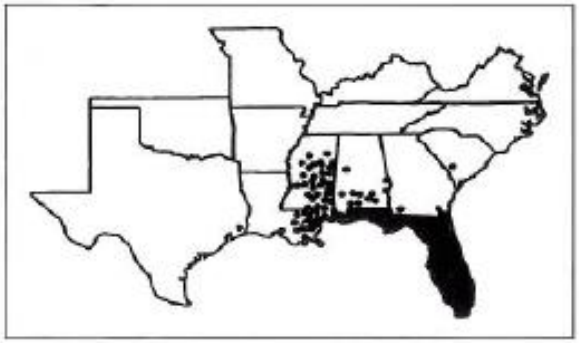
Currently, cogongrass occurs as a weed in Alabama, Florida, Georgia, Louisiana, Mississippi, South Carolina, Texas, and Virginia, and it continues to spread. (See U.S. distribution map on back page.) Several thousand acres are infested with cogongrass in the southeastern United States, and more than 1.2 billion acres worldwide (6). Because of its aggressive, weedy habit in other countries, cogongrass is included on the Federal Noxious Weeds List.

IDENTIFICATION, BIOLOGY, AND ECOLOGY

Cogongrass produces numerous upright smooth stems 6 to 47 inches tall, which form loose or densely compacted stands. Because of the dense stems and rooting system, cogongrass usually chokes out existing vegetation (3). One unique characteristic for identification is that the midrib of the leaf is off-set (closer to one leaf margin than the other) (4). Another unusual characteristic of cogongrass is its flowering pattern. It normally flowers at the beginning of the growing season (March to May), although flowering may also occur following frost, fire, mowing, tillage, or other disturbances. Most native grasses that resemble cogongrass will flower at the end of the growing season, rather the beginning. In central and south Florida, however, cogongrass may flower throughout the year (2).

Flowers typically occur at the top of the stem, and are easily identified by silvery or whitish silky hairs attached to the seed which create the appearance of a feathery plume.

Silver beardgrass



Distribution of cogongrass in the United States

There is one grass that may be easily confused with cogongrass. Silver beardgrass [***Bothriochloa saccharoides*** (Sw.) Rydb. – ***Andropogon saccharoides*** (Sw.)] looks like cogongrass, but is smaller, forms clumps rather than dense stands, and flowers in the fall. In Mississippi and other southern states, cogongrass usually occurs in non-cultivated sites, including pastures, orchards, fallow fields, forests, parks, and natural areas, and highway, electrical utility, pipeline, and railroad rights of way. Soil type preference is primarily sandy soils with low nutrient levels, although cogongrass will inhabit more fertile sites. Each cogongrass plant can produce up to 3,000 seeds per season (6,7). Researchers have found that cross-pollination is necessary for seed production (8). Seedlings are frequently found in open sites that have been disturbed by clear cutting, burning, tillage, excavation, or grading. Seedlings begin to produce rhizomes about 4 weeks after emergence (8).

CONTROL STRATEGIES

Currently there is no single treatment that effectively eliminates cogongrass infestations. This weed will not persist in areas that are frequently cultivated; thus frequent tillage can be used for cogongrass control in certain sites. Mowing or burning will remove above-ground vegetation, but opens the plant canopy for emergence of seedlings and new stems from rhizomes. Roundup Ultra or Roundup Pro at 5 quarts per acre or as a 1.5% solution will suppress cogongrass. Repeated applications each year for several years are needed for control. Applications of Arsenal at 16 ounces per acre can be used in certain areas, and has provided excellent control up to one year after application (10). Because Arsenal and Roundup are nonselective herbicides, applications may damage nearby desirable vegetation. Since Arsenal remains in the soil for long periods, its effectiveness on cogongrass and other plants may continue up to a year after application.

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Chinese Tallowtree

MISSISSIPPI STATE UNIVERSITY EXTENSION

Figure 1. Young Chinese tallowtree and leaf (inset).

Figure 2. Chinese tallowtree with yellow inflorescences.

Figure 3. White fruit on Chinese tallowtree.

Chinese tallowtree [*Triadica sebifera* (L.) Small] [Syn. *Sapium sebiferum* (L.) Roxb.; *Stillingia sebifera* Michx.] is a deciduous to evergreen tree native to China, Japan, and Korea. It was introduced to the United States in the mid- to late 1700s as a seed oil crop. Elliott (1824) reports it naturalized along the coast of South Carolina and Georgia fewer than 100 years after its introduction. It escaped from cultivation in at least nine southern states. This invasive plant tolerates saline to freshwater flooding, shade to full sun, acidic to alkaline soils, and wet to dry soils. It establishes dense, solid stands that crowd out native plant species. Characterized by rapid growth and prolific seed production, it is an extremely competitive invasive plant.

Tallowtree is commonly grown in the United States as an ornamental because of its yellow flowers, red fall foliage, and unusual white fruit, which gave it the name "popcorn tree." However, Chinese tallowtree is a noxious weed in several states, including Mississippi; it is not, however, considered a federal noxious weed. Once introduced into a landscape and mature enough to produce seeds, it quickly spreads into surrounding landscapes. If allowed to perpetuate, control is difficult and expensive.

Description

Vegetative Growth

Chinese tallowtree generally grows between 30 and 40 feet tall, but it can reach over 50 feet. In the southeastern United States, it is deciduous. Leaves are simple, alternate, and smooth (**Figure 1**). The foliage is bright green in summer but often turns fiery red in the fall.

Flowering

Chinese tallowtree is monoecious, with drooping, yellow tassels of insect-pollinated flowers in the spring (**Figure 2**) followed by white fruit in the fall (**Figure 3**). The white fruit can persist throughout the winter and is thought to be poisonous. Seed production can be heavy, averaging around 100,000 seeds per tree.

Dispersal

Despite being poisonous, fruit is spread by birds and other wildlife. Water also disseminates fruit, as evidenced by seedlings germinating on floodplains. Chinese tallowtree is still cultivated throughout the South, and human dispersal can facilitate invasions in and around residential areas.

Habitat

Chinese tallowtree is an early successional species and often emerges to dominate forested areas and right-of-way clearings. It reduces the number and variety of native species in a location, altering the ecosystem's structure and function. In southern Texas, herbaceous coastal prairies were transformed into closed-canopy tallowtree forests within 10 years. Although they can be damaged by early hard freezes, Chinese tallowtrees tolerate a wide range of environmental conditions.

Distribution

Chinese tallowtree has spread rapidly in the United States. It is widely planted in the southern United States as an ornamental and as a pollen crop for honey production. The full extent of its cold-hardiness is not known, but it seems to be progressing northward.

Control Methods

Chemical

See **Table 1** for recommended chemical treatments. These products can be applied in a variety of methods that include foliar, frill, basal bark, cut stump, and soil applications. **Frill** (also known as hack-and-squirt) requires a hatchet, machete, or ax to create an opening in the bark every 2 inches around the trunk; the herbicide is applied in these openings. **Basal bark** applications are made by spraying the lower 18–24 inches of the entire plant trunk with a bark-penetrating adjuvant. These treatments are most effective on trunks fewer than 4 inches in diameter and when treated just before bud break. **Cut stump** applications are made after the tree has been felled; the woody tissue just inside the bark of the remaining stump is treated to prevent resprouting. All foliar and basal bark applications also require a nonionic surfactant at 32–64 ounces per 100 gallons of spray solution. Imazapyr and hexazinone are absorbed by tree roots, so applications made within two times the dripline of desirable trees may cause injury or death. When spraying Chinese tallowtrees near water, use herbicide formulations and adjuvants that are labeled for aquatic applications.

Mechanical

Hand removal may be possible for small infestations, although tallowtree stems break easily. Seedlings can be pulled in wet soils if roots are not very deep.

Cultural

Since Chinese tallowtrees tolerate a wide range of environmental conditions and soil types, cultural control is not practical. However, selecting alternative landscape ornamentals will help prevent further infestations.

Table 1. Chemical control for Chinese tallowtree.

Herbicide	Formulation	Method	Rate
Fosamine	4 lb/gallon	Foliar	192 to 768 oz/A or 30% solution
Glyphosate	3 lb ae/gallon	Foliar	1% solution
		Cut stump	undiluted
Hexazinone	2 lb/gallon	Soil	256 to 512 oz/A
Imazapyr	2 lb ae/gallon	Foliar or Soil	32 to 96 oz/A or 2%
		Frill or Cut stump	64 oz+32 oz water
Imazapyr+ Metsulfuron	72.7%	Foliar	25 oz/A
Triclopyr	4 lb ae/gallon	Foliar	2% solution
		Basal	20% solution+ bark penetrator
		Frill	20% solution
		Cut stump	undiluted

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Timber Stand Improvement

Most Southern forestlands are currently not producing up to their potential. This low productivity is especially severe on millions of acres of privately owned forestland where undesirable trees are growing on space that could be used for higher-quality trees. On average, undesirable or cull trees occupy one-third of the total growing space in pine-hardwood and hardwood stands of the South.

Timber stand improvement practices are used to remove trees of undesirable form, quality, condition, growth rate, or species. Removing poor trees will stimulate the growth of more desirable trees and will increase profits to private, nonindustrial forestland owners. It is very likely that your timberlands need timber stand improvement practices to maximize these profits.

What Is TSI?

Timber stand improvement, or TSI, is a phrase used to identify forest management practices that improve the vigor, stocking, composition, productivity, and quality of forest stands. The improvement results from removing poor trees and allowing crop trees to fully use the growing space. The chief aim of TSI is continued production of more and better timber products. TSI practices can be used to convert assorted hardwood and pine stands into productive forests of desirable species. TSI can speed up growth and improve tree quality in your forest.

Different TSI practices may be needed at different times during the life of an established stand—from the start of a new crop of trees until the final harvest. Here are some basic TSI practices:

Prescribed burning in pine stands to remove undesirable hardwoods, to prepare seedbeds, to reduce the potential for wildfires, and to improve wildlife habitat.

Cull tree removal to make growing space available on areas occupied by deformed, defective, and undesirable trees. Some cull trees may be cut and sold; however, most must be killed with herbicides.

Thinning to relieve overcrowding and increase the growth rate of crop trees. Precommercial thinning in young, unmerchantable stands is a cost practice. Intermediate thinnings or improvement cuts in older stands may produce some income for landowners.

Sanitation cutting to remove trees that have been damaged by insects, diseases, wind, or ice.

Release of young, vigorous crop trees for faster growth and better quality by removing overtopping and competing trees.

Trees to Remove in TSI

In pine, mixed pine-hardwood, and hardwood stands, remove trees that are financially mature or that interfere with the growth and development of more valuable stems. Removals should include these:

- suppressed trees that will not live until the next thinning
- trees too crooked, forked, or limby to make a No. 2 sawlog
- trees with fire scars and injuries from insects, disease, wind, or ice
- trees on the wrong site (such as a water oak growing on a ridge)
- trees that are mature and slow-growing
- any tree that will not contribute to the net value of the stand at the next thinning
- wolf trees with large crowns that occupy too much growing space or shade out more desirable species

You will want to leave these trees in your timber stand:

- high-quality trees
- fast-growing trees

These species can be difficult to control:

- ash
- beech
- cedar
- privet
- dogwood
- hackberry
- sugarberry
- hickory
- holly
- maple
- poison ivy
- honeysuckle
- kudzu
- yaupon

Thinning

Thinning overcrowded stands increases diameter growth of residual trees and decreases losses from natural mortality. Larger diameter trees are more valuable as sawtimber, plywood, and veneer than are smaller trees that are used for pulpwood, firewood, or fence posts. Thinning does not increase the total volume or fiber yield of a stand, but it substantially increases the yield of lumber, plywood, and poles and decreases loss from natural mortality.

Marking Trees for Thinning

You can learn how to mark your own pine stands for thinning. All you need is help from a forester, a thinning guide that gives the number and spacing of trees at various ages, and practice. MSU Extension offers pine thinning workshops intended to teach private landowners the basics of performing thinning operations. Contact your county Extension agent if you are interested in attending one of these workshops. However, selective marking of hardwood stands requires the expertise of an experienced forester.

Precommercial thinning is cutting in young, dense stands where the trees are too small to sell as wood products. This type thinning produces no immediate income for the landowner, but the cost may be justified by the value of increased future growth. The purpose of precommercial thinning is to reduce competition and improve the growth rate of remaining trees. Unwanted trees can be removed with herbicides, mechanical equipment, or by cutting. Thinning can sometimes be delayed until trees are large enough to make fenceposts or firewood if a market is available. Precommercial thinning plus cull tree removal of large hardwoods can result in an investment return of 10 to 20 percent in young pine stands.

Commercial thinning of merchantable size trees produces some income for the landowner, depending upon the quantity, size, and quality of trees being removed. A commercial thinning is often referred to as an improvement cut if the very poor-quality trees being removed are marketable. From an economic standpoint, there should be sufficient volume to justify a harvesting operation by the buyer. The money a landowner receives for standing trees, called stumpage, decreases as the cost of harvesting increases. Harvesting cost decreases as tree size, quality, and volume per acre increase. You may want to delay thinning until trees are large enough to make an economical harvest, even though increased growth of crop trees will also be delayed.

Pine Beetle Prevention

You can reduce the likelihood of southern pine beetle attack in your pine timber through thinning. Overstocked stands are more susceptible to beetle attack. Overcrowding weakens the ability of trees to repel insect penetration. Healthy trees can often "pitch out" a beetle with increased resin flow. Also, cutting slow-growing, overmature trees during thinning operations reduces the chance of beetle attack. On rare occasions, residual crop trees damaged during thinning may be killed by black turpentine beetles. However, the potential danger of southern pine beetle infestation in an overcrowded stand far exceeds the loss of a few isolated trees to black turpentine beetles.

Sanitation Cutting

Sanitation cutting is normally performed during thinning operations so that trees damaged by insects, disease, fire, wind, or ice can be sold along with good trees. Sanitation cutting is included in the practice of "thinning from below," where trees with damaged or deformed stems are cut first regardless of their crown position. You must decide whether or not to remove each tree based on its condition and likelihood of surviving until the next scheduled thinning. Some good, healthy trees may also be cut to achieve desired crown spacing (thinning from above). Sanitation cutting may not be economical unless it is done during a commercial thinning operation. If you cut only deformed trees, you may have difficulty selling them. If the trees cannot be sold, use the cheapest means of cull tree removal rather than sanitation cutting. Sanitation cutting alone is profitable only after a natural disaster, such as a hurricane, wind storm, or ice storm, where numerous valuable trees are damaged.

- some mast-producing and den trees for wildlife
- trees spaced so that all available growing space is used efficiently

Often people think TSI practices always involve out-of-pocket costs for the landowner. However, some TSI practices can produce immediate income. Thinning is a TSI practice that can produce income if trees being cut are merchantable. Research has shown that volume growth and financial returns will increase with each additional TSI treatment, if costs are reasonable and adequate markets are available. For example, a prescribed burn before the harvest of an old pine stand can increase volume growth in the new stand. Prescribed burning plus removing large hardwoods in a young pine stand can also provide a good investment return.

Ask a forester to assist you in choosing the right TSI practices that will produce the desired forest management results at the least cost. Some TSI practices are quite inexpensive, and some, such as thinning, may produce immediate revenue. All TSI practices will increase future income.

Prescribed Burning

Fire, if properly used, can be a very effective TSI tool for forest improvement, maintenance, and protection of pine stands. It is often the cheapest management practice available to a landowner. Prescribed fire can be used for multiple purposes, including these:

- removing undesirable hardwoods in pine stands
- reducing wildfire hazard by controlling fuel build-up on the forest floor
- exposing the mineral soil seedbed for natural seedfall and improved germination
- removing brush and logging slash before planting seedlings
- improving wildlife habitat by promoting annual legumes and desirable browse growth, by increasing the nutrient content of food plants, and by eliminating heavy brush on the forest floor
- controlling brown spot disease on young longleaf pine seedlings

Prescribed fire is usually not recommended for hardwood stands. Hardwoods have thin bark that is easily damaged by fire. Pines have thick bark that insulates the cambium (layer of growth cells under the bark) from heat damage. If you are interested in learning more about the use of prescribed fire, contact your county Extension agent or county service forester. Never attempt to use fire in your timber stands without the help of a forester. Fire is a management tool that must be applied regularly, at certain times of the year, during the right weather, and with proper equipment. A professional forester can assist you in developing a prescribed burning program for your timber stands.

Cull Tree Removal

Cull tree removal involves cutting or killing undesirable weed trees or culls. A cull is any tree, pine or hardwood, whose quality is so poor that you cannot sell it. Cull trees often grow larger but lack quality. They take up needed growing space, shade more desirable trees, and harbor insects and disease. You will typically profit by removing them to make room for better trees. Occasionally, a less desirable tree may be left because of its wildlife value. Some low-quality trees may be used for firewood and low-value products, but most culls necessitate chemical or mechanical control. Methods of cull tree removal include these:

- cutting trees for firewood or leaving on-site
- injecting herbicides
  - hatchet and squirt bottle ("hack and squirt")
  - tree injectors
  - hypo-hatchet
- basal spraying
- thin-line application
- cutting with stump treatment to prevent sprouting
- directed foliar sprays
- soil applications
  - dry pellets (by hand or air)
  - liquids ("spot gun" application)

Method effectiveness will vary with the technique used, herbicide used, size of the tree, time of the year, species, and other factors.

These species are relatively easy to control:

- birch
- blackgum
- box-elder
- cherry
- sycamore
- ironwood
- oak
- plum
- sassafras
- sumac
- sweetgum
- willow

Release

Release is a TSI practice that can be used to regulate species composition and improve the quality and growth of very young stands of trees. A new crop of trees can become established by natural seeding or sprouting under a canopy of overtopping trees. Unless these new trees are released from shading, they probably will not survive. The overtopping trees may be of desirable species, or they may be low-quality or culls. Undesirable, competing species may also be growing among the young trees. You can harvest overtopping and competing trees if they can be sold, or remove them with a herbicide if they are unmerchantable. You can inject or aerially spray hardwoods growing over young pine trees. If chemical site preparation was not performed or successful, woody release can be used to control hardwoods in established pine stands. If deemed necessary, woody release should be performed in years two to five. After this point, the competitive impact of undesired stems has a permanent negative effect on pine growth and rotation length.

Release operations can still be performed later in the rotation, but they should be implemented in conjunction with some other technique like thinning. Exercise caution when releasing desirable hardwood trees in hardwood stands because herbicide sprays can kill both desirable and undesirable hardwoods. Usually the most appropriate method for release in hardwood stands is that of injection. However, while not typical, injected herbicides can be translocated through root grafts to adjoining crop trees. Get professional help from a forester before using herbicides for overstory or understory release of young trees.

Tax Considerations

Timber stand improvement practices may qualify for deduction as annual expenses from your ordinary income. Keep good records of your TSI costs. Contact your county agent for more information on forest taxation, management, marketing, and multiple use.

For more information and publications on forest management, marketing, and protection, contact your county Extension office.

More Information

The following publications provide more detailed information on topics related to timber stand improvement. Copies are available from your county Extension office.

IS1573 Tree Injection with Reduced Labor
P1588 Direct Seeding
P1612 Forestry/Wildlife Myths and Misconceptions
P1816 Natural Regeneration Using Seed Trees
P1834 Evaluating High-Graded Hardwood Stands
P2004 Bottomland Hardwood Management
P1532 Weed Control Guidelines for Mississippi
(See Woody Plants section.)

Also, check out our Extension Forestry site at ***http://www.msucares.com/forestry***.

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Revised by **Dr. A. Brady Self**, Assistant Extension Professor, Forestry, from earlier editions by Dr. Andrew J. Londo and Dr. Thomas A. Monaghan.

U.S. DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION ASSISTANCE NOTES

ND-CPA-6
11-97

LAND USER	ADDRESS	ACREAGE	LOCATION OF UNIT
Boy Scouts of America - SE Louisiana Councio	4200 S. I-10 Service Rd. West Suite 101 Metairie, LA 70001	1,140	Hancock County, MS. Entrance: Latitude: N 30.57226 Longitude: W -89.35462

CURRENT CONSERVATION OBJECTIVES Manage timber properly, in a sustainable manner. Maximize income from timber production over time. Longleaf restoration will be a large part of this management.

List possible alternative resource management systems the NRCS conservationist might consider with the land user (as objectives change , rec

Longleaf restoration and any conservation or habitat enhancement programs that might be a fit for the property

Notes of significant assistance provided. Alternatives considered, decisions reached, resource management systems or component practices installed, and follow-up provided may be recorded chronologically below and on additional pages to provide a history of resource planning and implementation activities with the land user including evaluation of significant social, cultural, economic, and environmental resources (these include consideration of wetlands, flood plains, endangered species, archeological values, prime lands, etc.)

DATE	ASSISTED BY (initials)	NOTES
3/10/25	JBM	Met with director Klemm to discuss new conservation plan. Discussed long term plans and
		agreed on terms for the plan. Goal stated as proper forest management and income from
		timber in the future. Reforestation of large areas where we want to restore the longlead pine
3/26/25	JBM	Agreement signed for plan commencement
4/24/25	JBM	Begin drone work to make orthophoto
4/25/25	JBM	Finish drone work
5/6/25	JBM	Field recon to check stocking of stands, ground conditions and harvest feasisbility of the few
		older stands. Got gps mapping work done on trails and roads and some stand lines
5/7/25	JBM	Finished field info
7/28/25	JBM	Submit plan to the Councl

Clear Form