

provide skills training, education, and useful work experiences for human resources enrollees to prepare participants to become productive members of society.

It will also develop enrollees' understanding and appreciation of the importance of ecological systems and the conservation of natural resources.

Opportunities will be provided for volunteers to assist in the management of the National Forests.

DESIRED FUTURE CONDITION OF THE FOREST

This section describes what the Forest will be like if the management direction contained in the Plan is implemented. It should summarize the anticipated physical changes which would result from carrying out planned management practices. It describes what the physical structure of the Forest will be at the end of ten years and beyond.

RECREATION

Insure developed campgrounds charging use fees are up to current standards in the 2nd period. Production capability will provide an ample supply to the 5th period. One additional developed area in southwest Mississippi is provided in the 2nd period if funds are available.

Electrical hookups will be provided at selected areas when the following criteria are met and funds become available.

--There is no opportunity for private sector development of campgrounds with electrical hookups.

--Contrast with urbanization can be maintained in the Forest Service campground.

--Fees can be set at a rate that will pay for the additional construction cost and operation and maintenance of the area.

--Nighttime heat and humidity conditions render sleep unrealistic without air conditioning.

An increasing supply of dispersed recreation opportunities will be provided through the 5th period primarily through increased access due to logging activities and an additional 34 miles of trails.

VISUAL RESOURCE

The most obvious change in the Forest will be in timber management. As timber production is increased, more activities will be evident and, consequently, more effects will be viewed. The Forest may take on a more "managed" look. This condition will be enforced as management intensity and utilization are increased.

The likely visual result of intensive, even-aged timber management over the planning horizon is a visible distribution of age classes. More stands of varying size will become evident. This distribution has the positive aspect of providing visual variety to the landscape.

Projections of future visual conditions are based on visual variety, comparisons of total acres harvested, visual absorption capacity of the land and comparisons between estimated volumes of harvest and growth.

Electrical hookups will be provided at selected areas when the following criteria are met and funds become available. --

- There is no opportunity for private sector development of campgrounds with electrical hookup.
- Contrast with urbanization can be maintained in the Forest Service campground.
- Fees can be set at a rate that will pay for the additional construction cost and operation and maintenance of the area.
- Nighttime heat and humidity conditions render sleep unrealistic without air conditioning.

EXISTING VISUAL ! CONDITION !		FUTURE VISUAL CONDITION							
! CURRENT !		ACRES BY PLANNING PERIOD							
EVC TYPE !	ACRES !	1 !	2 !	3 !	4 !	5 !	6 !	7 !	8 !
I	14,823	14,823	14,823	14,823	14,823	14,823	14,823	14,823	14,823
II	13,682	13,463	13,234	12,996	12,788	12,583			
III	68,413	68,632	68,861	69,099	69,307	69,511			
IV	160,770	174,890	189,653	205,018	205,018	105,018			
V	882,527	868,407	853,644	838,279	838,279	838,279			

RANGE

This plan would increase the quantity, quality and availability of forage produced on the De Soto National Forest. It is expected that only a fraction of this resource will be harvested with livestock by beef producers.

Local livestock operators holding permits to harvest forage on the National Forests in Mississippi will continue to be provided technical information and encouraged to develop cooperative management plans that incorporate the use of national forests as part of their operation. More intensive management on national forest grazing allotments will be promoted to improve cost effectiveness.

SOILS

This Plan contains standards and guidelines that will ensure the maintenance of site productivity. Management practices are scheduled which will maintain (and in some cases improve) site productivity. Because of the increasing demand for wood products, there will be increased timber harvesting on wet soils. Some wet sites not currently being harvested will be managed intensively for timber production. In recent years, technology has produced equipment capable of harvesting wet sites without lowering soil productivity. The use of specific management practices following expressed standards and guidelines will permit harvesting and regeneration on wet sites with minimal soil loss.

WATER

The average annual output of water from the National Forests in Mississippi will remain fairly constant over the 50-year planning horizon. It will be 2,130M acre-feet per annum in the 1st period, and 2,128M acre-feet by the end of the 5th period. Water yield fluctuates with manipulation of vegetation (primarily through timber harvest). All surface water will meet or exceed State water quality standards. Flooding will not be affected by management. Riparian areas and floodplains will be protected by our standards and guidelines.

LANDS

It is assumed that the current Forest land base will remain more or less constant over the 150-year planning horizon. Land adjustments which will occur during this time will not significantly alter scheduled activities or outputs. The land adjustment program will provide for a more consolidated and administratively more efficient unit to manage.

MINERALS

It is assumed that USA mineral rights will continue to be leased with appropriate surface protection stipulations. Oil and gas exploration and production activities will continue in those portions of the Forest having suitable potential for development. Surface protection stipulations will provide adequate mitigation of damages from this activity.

Common variety mineral development will continue where available to provide surfacing material for road building and maintenance in the National Forests.

FACILITIES

Under this Plan, the Forest transportation system will be completed by the end of the 5th period. The transportation system will grow

from 2,401 miles at present to 4,481 miles by the end of the 5th period. This increase in mileage is a result of identifying existing woods roads that are to be added to the system and managed as is or reconstructed to the minimum standard needed to meet management objectives.

A comparison of the Forest transportation system of Arterial Collector and Locals at present and at the end of the 5th period is as follows:

<u>Classification</u>	<u>Service Use</u>	<u>Present Miles</u>	<u>E.O.P.5 Miles</u>	<u>Change</u>
Arterial	Constant	150	150	0
Collector	Constant	320	320	0
Local	Constant	1,131	981	-150
Local	* Intermittent	800	3,030	+2,230

* Intermittent means closed for more than a year between activities.

AIR

Meet or exceed state ambient air standards.

FIRE

With the increase in understory prescribed burning, wildfire intensity will be reduced, resulting in a lessening of resource damage. Because of the nature of incendiary activity on the Forest, no appreciable change is expected in the number of wildfires unless something outside the scope of this Plan changes. In the past, the Forest employed a full-time Fire Prevention Technician on the two Districts with the highest incendiary occurrence. In five years there was no significant decrease in the number of incendiary fires. Stronger State laws and an increased law enforcement effort is needed to reduce incendiary occurrence.

WILDLIFE

The future forest will increase the habitat capability for early seral associated wildlife species, in concert with Forest suitability and maintain or increase non-game populations. It will also develop habitat parameters associated with declassification of endangered, threatened and sensitive flora and fauna. Habitat capability for mid-successional species will decrease by 12% through the first 5 periods and eventually stabilize within 2% of current levels. Habitat capability for late successional associates will decrease 30% the first 5 periods and then stabilize about 20% below current levels.

Warm water fishery habitat will be maintained near current levels. Riparian and aquatic habitat will be managed to maintain a high component of late seral vegetation.

Habitat for the endangered red-cockaded woodpecker will improve with populations expanding. The endangered American alligator should have expanded its range on the National Forests in Mississippi. Sensitive species such as the gopher tortoise and black pine snake will be managed and protected. Environmentally sensitive and unique communities, such as savannas, will be managed to perpetuate natural representation in the forest ecosystem.

The following table displays the habitat capability for white-tailed deer (indicator species for mid-successional habitat), wild turkey (indicator species for late successional habitat), cavity nesters (indicator species group for avian cavity nesters and animals needing late successional habitat) at the end of the first, fifth, and fifteenth decades. Cavity nester HCI is directly related to DBH. Over time this alternative will provide smaller DBH size classes.

MEAN ANNUAL HABITAT CAPABILITY FOR THE
FIRST, FIFTH, & FIFTEENTH PERIODS

Species	Period		
	1	5	15
Deer	29,870	33,750	30,860
Turkey	26,580	23,820	26,090
Cavity Nesters	72,000	50,170	57,890

The diversity in plant and animal communities will increase because of the emphasis on maintaining viable populations of all species. Next, Figure 4-2 displays the mixture of habitat which will be located on the Forest after the first, fifth, and fifteenth periods.

Table 4-11 displays forest seral stages over the 150-year planning period and identifies forest trends. The early seral age group (0-20 years) represents highly productive early age classes for early seral associates and the period of very low production following "plantation closure" and prior to the first thinning.

The mid seral stage is characterized by economically mature timber with slowing growth rates and high mast production. The late seral stage represents a mature forest with increasing mortality occurring. This stage is where most den and snag development occurs.

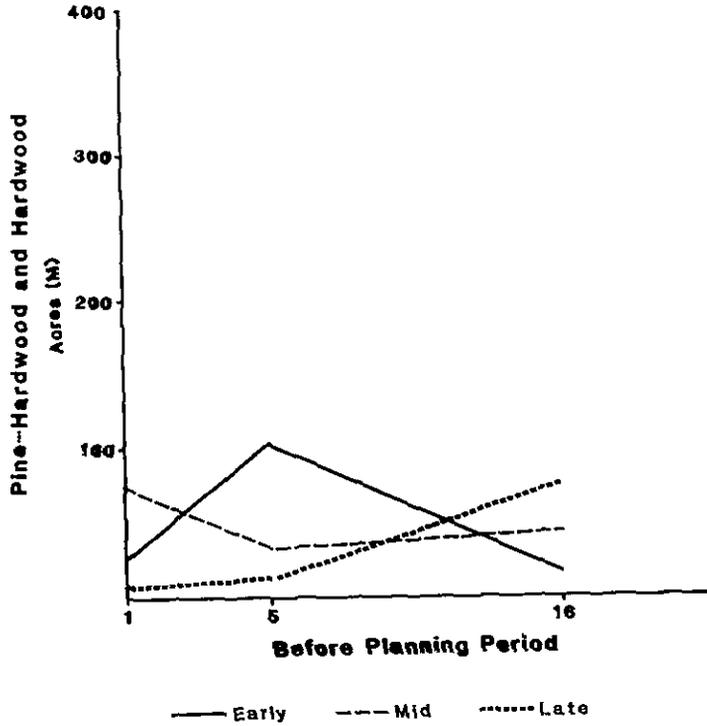
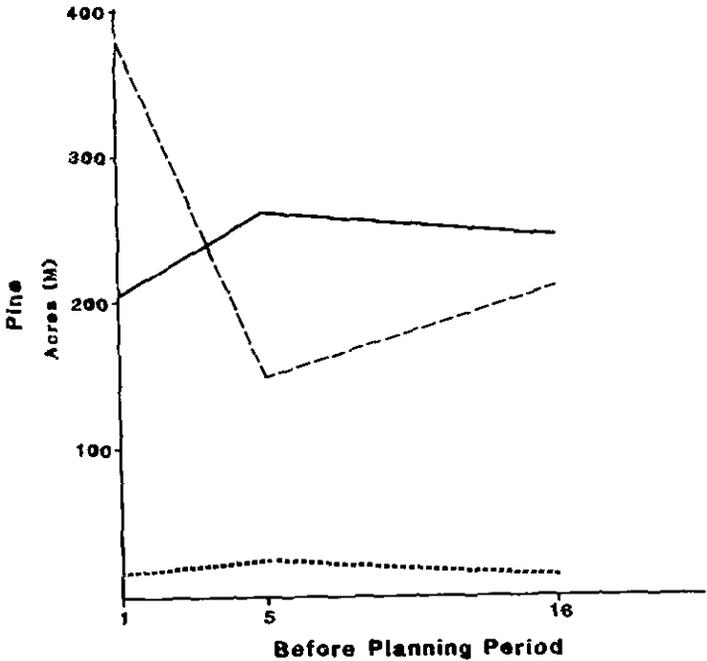
Table 4-11
TRENDS IN EARLY, MID, & LATE SERAL STAGES
(Regulated Acres)

Working Group	Age/Working Groups		
	Early	Mid	Late
Yellow Pine	0-20	40-70	70+
Hardwood	0-20	60-100	100+
Longleaf	0-20	50-80	80+
Slash	0-20	40-70	70+
Pine-Hardwood	0-20	60-80	80+
Moderate Slash	0-20	40-70	70+
Moderate Hardwood	0-20	50-90	90+

% OF WORKING GROUP BY SERAL STAGE

Working Group	Early				Mid				Late			
	1	3	5	15	1	3	5	15	1	3	5	15
Yellow Pine	25	54	27	26	57	21	20	32	3	3	1	2
Hardwood	11	20	47	3	36	54	17	22	4	5	78	39
Longleaf	18	20	42	46	30	54	16	14	0	0	10	2
Slash	44	1	85	39	40	20	11	4	0	0	2	8
Pine-Hardwood	27	15	57	65	33	44	1	2	2	10	0	1
Moderate Slash	33	28	36	7	23	40	36	40	1	0	0	0
Moderate Hardwood	7	12	75	5	55	80	8	19	0	0	0	0

Figure 4-2
 Early, Mid, and Late Seral Stages



— Early - - - Mid Late

The Featured Species System incorporates two vital components involving supply. They are (1) biological capability, and (2) a demand for the species. The following table reflects the current acreage and percent of the land allocated by species.

FEATURED SPECIES SUMMARY 1/
NATIONAL FORESTS IN MISSISSIPPI

Acreage Species/Species Group	(M Acres)	% Area
Deer	559.195	50.5
Turkey	286.570	25.7
Gray Squirrel	122.040	11.1
Fox Squirrel	37.323	3.4
Waterfowl	9.241	0.9
Quail	45.560	4.2
Red-cockaded woodpecker <u>2/</u>	9.138	0.8
MS sandhill crane	.165	0.1
Non-consumptive	.201	0.1
Not Determined <u>3/</u>	23.121	2.1
Other <u>4/</u>	15.354	1.1

1/ Data as of April 1982.

2/ Colony and recruitment stands only. An additional 175,719 acres are managed on long rotations and old age foraging requirements.

3/ Lands not assigned a featured species - generally newly acquired lands.

4/ Includes consumptive species featured on less than 0.1% of the land base.

TIMBER

The steady-state forest under this Plan would be a forest of relatively balanced age classes interspersed with patches of older seral stages and unregulated areas. The forest would be relatively intensively managed with small pine sawtimber-poles and large hardwood sawtimber the end product objective. A large personnel group (minimum 50 additional people) would be working in timber management administering more and larger sales to an industry with several new and expanded plants. Species composition would resemble today's except on the De Soto National Forest where the slash pine on the better sites would be replaced with loblolly and longleaf pine. The amount of hardwood would have increased to nearly 20% on the Bienville Ranger District and the De Soto National Forest. On the remaining Districts, the total hardwood component would be the same, although more evenly distributed with most compartments containing at least 20% hardwood.

**Table 4-12
PRESENT AND FUTURE FOREST CONDITIONS**

	Unit of Measure	Suitable Land		Unsuitable Land
		Pine	Hdwd.	
Present Forest:				
Growing Stock	MMCF	1461.3	511.8	141
	MMBF	7306.5	1559	705
		TOTAL MMCF 1973.1		
Live Cull	MMCF	7.6	39.1	1.9
	MMBF	41.8	215.1	9.5
Salvable Dead	MMCF	2.0	0	0.1
	MMBF	10		0.5
1st Period				
Annual Net Growth	MMCF	45.5	11.5	4.9
	MMBF	227.5	57.5	24.5
		TOTAL MMCF 570		
Annual Mortality	MMCF	5.6	7.4	0.5
	MMBF	28	37	2.5
Future Forest:				
Growing Stock	MMCF	1658.2	521.8	
Annual Net Growth	MMCF	75.4		

Rotation ages start at approximately board foot CMAI and increased to 120 years for the pines. To meet the plan objectives of providing increased mast production in hardwood stands, the hardwood rotations started at age 90 (20 years beyond board foot CMAI) and went up to 150. This meets the plan objective of producing sawtimber size products. The rotation ages selected by FORPLAN were:

Working Group	Rotations Selected (Age)
Yellow Pine	50 to 110
Hardwood	90 to 120
Pine-Hardwood	60 to 120
Longleaf	60 to 120
Slash	40 to 110
Moderate Yield Slash	60 to 70
Moderate Yield Hardwood	80 to 90

The older ages were selected by FORPLAN to meet minimum management requirements to provide 2-1/2% of the Forest in well-distributed stands of late seral stage trees.

MANAGEMENT PRESCRIPTIONS

FORPLAN PRESCRIPTIONS

FORPLAN prescriptions are broken into two categories: timber prescriptions, which can be applied only to areas suitable for timber management; and special prescriptions, which can be applied to specific areas. Once an area is allocated to a prescription, only a revision or new plan can change that prescription.

SPECIAL PRESCRIPTIONS

The following special prescriptions were developed:

- M Minimum level (other non-suitable lands)
- W Water
- R Recreation
- S Wilderness and wild and scenic river study

M Minimum - This provides custodial management and basic protection. There are no timber harvesting, road construction, recreation, wildlife, or range improvement activities. The basic soil resource and existing dispersed recreation improvements (trails) will be maintained. There is continued availability for inventory and management for lands, minerals, and special uses management purposes.

This prescription also provides for the continuation of experimental forests, military uses, special uses, administrative uses, and those uses which preempt normal multiple use management. Timber harvest will be done when directed by the officials responsible for the program -- an experimental forest may request a harvest. Roads, facilities, and improvements are included as areas under this prescription as well as wildlife openings and wildlife and range ponds. The basic soils resource and all improvements will be maintained. There is a continued availability for evaluation and management for lands, minerals, and special use management for those areas under this prescription which are not already under these programs.

W Water - This provides fishing and other management to the water areas of the Forest.

R Recreation - To provide for the operation and maintenance of developed recreation areas, visual and cultural resources, and other classified and special areas, dispersed recreation other than wildlife and fish user days, and recreation construction if a part of the benchmark or alternatives.

S Wilderness - To maintain the wilderness qualities of Black Creek and Leaf Wilderness Areas.

TIMBER PRESCRIPTIONS

Timber prescriptions for suitable lands provide for artificial or natural regeneration and for intermediate thinnings or for no intermediate thinnings. This gives four basic choices:

1. Artificial regeneration with thinnings.
2. Artificial regeneration with no thinnings.
3. Natural regeneration with thinnings.
4. Natural regeneration with no thinnings.

The time at which regeneration occurs will vary since there is a range of harvest ages in the prescription. The age selected for an individual vegetative type is that age which best achieves the overall goals and objectives of this forest plan. In addition, a specific vegetative type may have several harvest ages selected. This would occur to best meet requirements for non-declining yield, for market availability, for maximum present net value, for other overriding multiple use considerations such as minimal legal habitat for wildlife, for spatial considerations such as the amount of a compartment or stand that can be regenerated, etc. These and other considerations have been a major factor in the selection of the harvest age.

ASSOCIATION OF VEGETATIVE MANAGEMENT PRACTICES WITH VEGETATIVE TYPE

There are a series of practices associated with the four basic prescriptions shown above. These practices can be grouped into three categories: Those which occur during the first ten years of a stand and are associated with the first period establishment. Those which occur from the second period up to harvest and are associated with intermediate management. Those which occur during the final period of the stand and are associated with regeneration harvest. In addition, there are resource coordinating practices which occur throughout the life of the stand.

When an analysis area is placed under a timber prescription the practices in that prescription are customized to be consistent with the major basic goal of the prescription.

The four basic prescriptions include a whole series of vegetative practices which are unique or customized for each prescription. In addition, these practices will vary under the various different conditions found on the ground and as outlined under the forest-wide standards and guidelines, and the prescriptions for suitable forest lands. Finally, the period when harvest occurs will vary. The four basic prescriptions include many, many different sets of practices which will be implemented; these can be thought of as more than four prescriptions.

There is one other major component of the prescription which increases the total number of prescriptions. This is the vegetation to which the prescription applies. When conversions between vegetative types occur, two additional basic prescriptions are found:

1. Artificial, thin, conversion
2. Artificial, thin, no conversion
3. Artificial, no thin, conversion
4. Artificial, no thin, no conversion
5. Natural, thin, no conversion
6. Natural, no thin, no conversion

The following possible conversions were considered for the major vegetation types in the FORPLAN solution:

	<u>YP</u>	<u>SL</u>	<u>LL</u>	<u>H</u>	<u>PH</u>	<u>MS</u>	<u>MH</u>
Yellow Pine (YP)		Yes	Yes	Yes	Yes		
Slash (SL)	Yes		Yes	Yes			

No other conversions were in the FORPLAN solution.

When the conversions are added to the six basic prescriptions, the following prescriptions, Table 4-13, are now possible. While this list includes the customized practices and the considerations for vegetative types, it does not include the differences in practices as required by the forest-wide standards and guidelines or the different harvest ages.

PRESCRIPTIONS BY VEGETATIVE TYPE

The following is a list of abbreviations with their meaning used in the following prescription tables:

<u>Vegetative Type</u>	<u>Regeneration Type</u>	<u>Thinning</u>
YP - Yellow Pine	A - Artificial	T - Thinning
SL - Slash Pine	N - Natural	NT - No Thinning
LL - Longleaf Pine		
H - Hardwood		
PH - Pine Hardwood		
MS - Moderate Yield Slash		
MH - Moderate Yield Hardwood		

**Table 4-13
PRESCRIPTIONS BY VEGETATIVE TYPE**

PRESCRIPTIONS FOR THE YELLOW PINE VEGETATIVE TYPE

Vegetative Type	Regen. Type	Thin or No Thin	Convert to
YP	A	T	NONE
YP	A	T	SL
YP	A	T	LL
YP	A	T	H
YP	A	T	PH

YP	A	NT	NONE
YP	A	NT	SL
YP	A	NT	LL
YP	A	NT	H
YP	A	NT	PH

YP	N	T	NONE
YP	N	NT	NONE

PRESCRIPTIONS FOR THE SLASH PINE VEGETATIVE TYPE

Vegetative Type	Regen. Type	Thin or No Thin	Convert To
SL	A	T	NONE
SL	A	T	YP
SL	A	T	LL
SL	A	T	H

SL	A	NT	NONE
SL	A	NT	YP
SL	A	NT	LL
SL	A	NT	H

PRESCRIPTION FOR THE LONGLEAF VEGETATIVE TYPE

Vegetative Type	Regen. Type	Thin or No Thin	Convert To
LL	A	T	NONE
LL	A	NT	NONE
LL	N	T	NONE
LL	N	NT	NONE

**TABLE 4-13
PRESCRIPTIONS BY VEGETATIVE TYPE (continued)**

PRESCRIPTIONS FOR THE HARDWOOD VEGETATIVE TYPE

Vegetative Type	Regen. Type	Thin or No Thin	Convert To
H	N	T	NONE
H	N	NT	NONE
H	A	T	NONE
H	A	NT	NONE

PRESCRIPTIONS FOR THE PINE-HARDWOOD VEGETATIVE TYPE

Vegetative Type	Regen. Type	Thin or No Thin	Convert To
PH	A*	T	NONE
PH	A*	NT	NONE
PH	N	T	NONE
PH	N	NT	NONE

* Artificial applies only to pine.

PRESCRIPTIONS FOR THE MODERATE SLASH VEGETATIVE TYPE

Vegetative Type	Regen. Type	Thin or No Thin	Convert To
MS	A	T	NONE
MS	A	NT	NONE

PRESCRIPTIONS FOR THE MODERATE HARDWOOD VEGETATIVE TYPE

Vegetative Type	Regen. Type	Thin or No Thin	Convert To
MH	N	NT	NONE

PRESCRIPTIONS FOR ANALYSIS AREAS

Management prescriptions are written for two general classifications of Analysis Areas. These are lands not suitable for timber production and lands suitable for timber production. The analysis areas suitable for timber production were assigned one of the timber prescriptions. Analysis areas not suitable for timber production were assigned 14 prescriptions. Following is a summary of these prescriptions.

Not Suitable 1	RCW Colonies RCW Recruitment Stands
Not Suitable 2	Tank Maneuver Area Impact Area Rifle Range
Not Suitable 3	Erambert Seed Orchard Ashe Nursery
Not Suitable 4	Developed Recreation Sites
Not Suitable 5	Black Creek Wild & Scenic River Study Area
Not Suitable 6	Black Creek Wilderness
Not Suitable 7	Leaf Wilderness
Not Suitable 8	Harrison Experimental Forest Tallahatchie Experimental Forest Forest Service Hydrology Laboratory
Not Suitable 9	Utility Corridors Permanent Wildlife Openings Slough Wildlife Buffers Pitcher Plant Flats Other Unsuitable Forest Land
Not Suitable 10	Archaeological & Botanical Study Areas: Dowling Bayou Archaeological Study Site Pitcher Plant Botanical Study Area Railroad Creek Titi Botanical Study Area Cypress Bayou Botanical Study Area Noxubee Crest Botanical Study Area Shagbark Hickory Botanical Study Area Little Florida Botanical Study Area Loblolly Bay Botanical Study Area Chuquatonchee Bluffs Botanical Study Area LA-2 Botanical Study Area LA-6 Botanical Study Area Thompson Creek Bottom Botanical Study Area Choctaw #4 Botanical Study Area Ragland Hills Botanical Study Area

Not Suitable 10 (continued)	Singleton Prairie Botanical Study Area Durand Oak Prairie Botanical Study Area Nutmeg Hickory Proposed Research Natural Area *A contiguous watershed to Sandy Creek for National Natural (Aquatic Ecosystems) Study Area. 300 acres.* Granny Creek Bay Proposed Research Natural Area
Not Suitable 11	Owl Creek Mounds Archaeological Site Bienville Pines Scenic Area Harrell Prairie Botanical Area Red Gum Research Natural Area Overcup Oak-Water Hickory Research Natural Area Green Ash-Sugarberry Research Natural Area "Unmanaged Forty"
Not Suitable 12	Paul B. Johnson State Park Corps of Engineers Water Project Soil Conservation Service Plant Materials Center
Not Suitable 13	Water
Not Suitable 14	Roads Administrative Sites Trails
Suitable 1	Yellow Pine Working Group Hardwood Working Group Delta Hardwood Working Group Slash Pine Working Group Longleaf Pine Working Group Pine-Hardwood Working Group Moderate Yield Slash Pine Working Group Moderate Yield Hardwood Working Group

PRESCRIPTIONS FOR ANALYSIS AREAS
NOT SUITABLE FOR TIMBER PRODUCTION

NOT SUITABLE 1

Prescription

Total Acreage	5597
Colonies	3572
Recruitment	2025

Analysis areas covered under this prescription are stands designated as colony sites and replacement/recruitment stands for the red-cockaded woodpecker, a federally classified endangered species. Replacement/recruitment stands are areas within 3/4 miles of colony sites and are approximately 10 acres in size. These stands have been selected for treatment to encourage colonization by the bird, or to replace existing colony sites. Colony sites are

areas from 2 to 30 acres in size which contain one or more cavity trees occupied by a single clan.

All acreage has been classified in the "Rural" ROS class with a VQO of modification.

The analysis areas covered by this prescription were assigned to the "Minimum Level" FORPLAN prescription.

General Direction

The primary purpose of this prescription is to protect the birds' colony sites and to provide an opportunity for it to establish new colonies. The objective of this direction is -

- To provide and maintain suitable habitat for red-cockaded woodpecker colonies.
- To reach a population that ensures it is no longer endangered.

Management Practices

1. Prescribe burn colony sites and recruitment stands (MIH Code C02-610)
2. Commercial thin to BA 50-70 (MIH Code E02-424)
3. WSI, understory improvement work (MIH Code C02-610)
4. Spring check for active nesting (MIH Code C01-601)

Standards and Guidelines

1. Prescribe burn on a three-year rotation.
2. Construct no roads within stand boundaries unless no other option exists.
3. Maintain BA of 50-70.
4. Suppress all wildfires with objective of protecting cavity tree from damage.
5. Permit no salvage operations within colonies or recruitment stands except for Southern Pine Beetle.
6. Permit no activity within the colony site from March 1 through August 1.
7. Protect cavity trees and snags by raking around prior to prescribed burning colonies.
8. Do not isolate colony sites within regeneration areas.

NOT SUITABLE 2

Description

Total Acres	19,145
Tank Maneuver Area	17,042
Impact Area and Buffer	2,008
Keesler Rifle Range & Buffer	1,189

Analysis areas covered under this prescription are areas under special use permit for the exclusive use of the U. S. Armed Forces. They include both cleared lands and timber land. It is

all classed as unsuitable for timber production. Some harvesting will occur to meet the needs of the military and to salvage dead timber.

All acreage is in the "Roaded Natural" ROS class with a VQO of maximum modification.

The analysis areas covered by this prescription were assigned to the "Minimum Level" FORPLAN prescription.

General Direction

The primary purpose is to make land available to fulfill the training needs of the Armed Forces. The Forest Service will work with the military to protect the basic soil and water resource and the transportation system. Vegetation manipulation is the responsibility of the Forest Service.

Management Practices

- | | |
|---|--------------------|
| 1. Prescribe burn on 1-2 year cycle | (MIH Code P14-131) |
| 2. Prescribe burn on 3-5 year cycle | (MIH Code P14-131) |
| 3. Maintain road system | (MIH Code L19) |
| 4. Harvest timber | (MIH Code E02-424) |
| 5. Protect RCW colonies | (MIH Code C01) |
| 6. Coordinate logging use of transportation system with military use period | (MIH Code L19) |

Standards and Guidelines

1. Prescribe burn to reduce fire hazard and control understory.
2. The transportation system will be maintained jointly in accordance with the special use permit.
3. Suppress all wildfires in the Artillery Impact Area using containment. Suppress all other wildfires to meet the goal of containing 90% of the wildfires within two hours and/or 38 acres.
4. Conduct prevention activities with military.
5. Salvage dead and dying timber.
6. Conduct timber sales as necessary to assist military.
7. Protect and monitor red-cockaded woodpecker in these areas.
8. These areas are closed to grazing and ORV use.

NOT SUITABLE 3

Description

Total Acres	989
Erambert Seed Orchard	590
Ashe Nursery	399

Analysis areas covered under this prescription are two areas managed for the R-8 National Forest reforestation program. The Nursery grows loblolly, slash, shortleaf, and longleaf 1-0 stock on a rest-rotation basis. The Seed Orchard is a first generation seed

orchard consisting of loblolly, slash, shortleaf, and longleaf superior trees.

All acreage has been classified in the "Roaded Natural" ROS class with a VQO of modification.

The analysis areas covered by this prescription were assigned to the "Minimum Level" FORPLAN prescription.

General Direction

The primary purpose is to produce disease free seedlings and superior tree seed for use in National Forest reforestation. The objective is to plant only superior seedlings on the National Forests in the south.

Management Practices

1. Follow the Ashe Nursery Operation Plan (MIH E08-484)
2. Follow the Erambert Seed Orchard Operation Plan (MIH E09-494)
3. Use pesticides according to labels and provide adequate protection to employees and public. (MIH E08, E09)
4. Establish 2nd generation seed orchard (MIH E09-497)
5. Establish progeny tests (MIH E09-495)
6. Select superior trees (MIH E09-491)
7. Cone collection (MIH E08-481)
8. Seed collection (MIH E09-492)
9. Maintain buffer strip around seed orchard by prescribe burning (MIH P-14-131)

Standards and Guidelines

1. Protect Seed Orchard from fire by controlling wildfires to the smallest practical size at all intensity levels.
2. Tree Improvement Handbook FSH2475.1.
3. Produce only grade 1 seedlings for shipment.
4. Maintain cold storage facilities from packing point to destination.
5. Areas are closed to grazing and ORV use.
6. Reduce erosion from Nursery beds.
7. Control seed, cone, and nursery insects and diseases through integrated pest management.

NOT SUITABLE 4

Description

Total Acres -- 9,607

The analysis areas covered under this prescription are composed of developed recreation sites. Development ranges from an essentially natural environment to comfort and convenience facilities including paved roads, water systems, toilets, boat launches and swimming

beaches. Visual quality objectives are retention. Recreation opportunity spectrum is roaded natural. The analysis areas covered by this prescription were assigned to the "Recreation" FORPLAN prescription.

General Direction

No new areas are planned for construction in the 1st period. All sites will generally be maintained and rehabilitated but not expanded beyond present capacity. Developed recreation sites will be managed to present the public with a variety of developed recreation opportunities. They form part of the "broad spectrum of dispersed and developed recreation opportunities" required by the NFMA Regulations (36 CFR 219.13(i)). If funds are available, and demand continues to increase in southwest Mississippi, an additional developed site may be developed in the 2nd period.

Management Practices

1. Manage at "full service management" from April 15 through September 15 and at "reduced service management" for the remainder of the year. (A07)
2. Manage at "reduced service management" during the spring and fall designated hunting seasons. (A07)
3. Provide a spectrum of recreation opportunities. (A01) (A05) (A08) (A10) (A12) (A13) (A14)
4. Construct and reconstruct trails for pedestrian movement and hiking. (A10-12)
5. Manage area to provide for non-game uses and habitat diversity. Strive to provide frequent wildlife sightings, vegetative diversity, den trees and songbird habitat. (C01)
6. Sign or provide information areas in 100 year flood plain. Maintain water at a quality level for water contact sports. (F03)
7. Inspect and maintain dams. Perform priority 1 and 2 reconstruction as required. (L28)
8. Prescribed fire may be used to enhance the Recreation Resource. (P15)
9. Study and, if appropriate, add electrical hookups in the most needed developed campsites. (A05)
10. Design and construct a developed recreation site. (A06)

Standards and Guidelines

1. Facilities will be rehabilitated when annual maintenance costs exceed 50% of replacement costs.
2. Monitoring swimming water will be at a minimum of five tests during each 30-day period of use.
3. Construct/reconstruct and maintain trails according to "Trails South."
4. There may be "non-chargeable" yield from timber cutting done at the direction of Recreation and to the benefit of the recreation resource.
6. Allow no new special uses that will affect the recreation resource adversely.

7. Use stipulations as needed in mineral permits and leases.
8. Control all wildfires at the smallest practical size at all fire intensity levels. Suppression action should be with hand crews and pumpers at fire intensity levels I and II. Tractor/plows can be used at fire intensity levels of III or higher.

NOT SUITABLE 5

Description

Total Acres -- 6,942

The analysis areas covered under this prescription consist of a 1/4 mile corridor on each side of Black Creek beginning at Big Creek Landing and ending at Old Alexander Bridge, a distance of about 41 miles. Visual quality objective is preservation and recreation opportunity spectrum exists as roaded natural.

The areas covered by this prescription were assigned to the "Special" FORPLAN prescription.

General Direction

Management is to retain and protect the values which may qualify this area for inclusion in the Wild and Scenic River System, conduct a study which recommends the suitable areas for designation, and prepare an implementation plan for the disposition as determined by the Congress.

Management Practices

1. Wild and scenic river planning, inventory, protection, facility reconstruction and use administration. (A01, A02, A04, A05, A07, A08)
2. Trail construction, reconstruction and maintenance. (A12, A13, A14)

Standards and Guidelines

1. A management plan will be written for the designated area following FSM 2322 direction. Provide regulatory signing, public notice, and enforce regulation.
2. Manage as semi-primitive nonmotorized. Allow only those uses consistent with the classification. Monitor use visually and if values begin to deteriorate, distribute use.
3. Construct no new trails until classification has been determined. Reconstruction and maintenance will be consistent to classification standards.
4. Use stipulations as needed for existing leases or permits. Future mineral policy will be consistent with the classification

NOT SUITABLE 6

Description

Total Acres -- 4,560

The analysis area covered under this prescription is the Black Creek Wilderness and was assigned to the wilderness FORPLAN prescription. The visual quality objective is preservation and the recreation opportunity spectrum is semi-primitive non-roaded. The analysis area covered by this prescription was assigned to the "Wilderness" FORPLAN prescription.

General Direction

The Black Creek Wilderness will be managed to protect the existing wilderness attributes. Emphasis is to manage the area in accordance with the Wilderness Act of 1964. The area offers semi-primitive recreation opportunities: moderate level of solitude, some encounters with people; moderate opportunity for challenge, risk, and self-reliance, moderate level of on-site public safety (reasonable level of woodsmanship skills is assumed of visitor); and a moderate degree of Forest Service administration/public contact. Management activities are integrated in such a way that visitors leave only limited and site-specific evidence of their passing. Unacceptable levels of past use are rehabilitated and the affected area restored. Human travel is principally on abandoned roadways. Campsites are used and show evidence of repeated but acceptable use.

Management Practices

1. Wilderness planning, inventory, and use administration. (B01, B02, B03)
2. Trail construction, reconstruction, and maintenance. (A12, A13, A14)

Standards and Guidelines

1. An implementation plan will be written for each wilderness following FSM 2322 direction. Provide regulatory signing, public notice, and enforce regulation.
2. Manage as semi-primitive nonmotorized. Allow use activities that do not deteriorate the wilderness qualities existing. Monitor use by visual count of vehicles in parking areas, and inspection of impact areas. If wilderness values begin to deteriorate, distribute use.
3. Construct and maintain trails to wilderness standards.
4. Confine, contain, or control all fires in accordance with Fire Suppression in Wilderness Areas, Appendix F-1.
5. Prescribed fire may be used as a management tool in accordance with the Chief's policy.
6. *-Epidemic conditions of insect or disease may be controlled with Chief's approval except for SPB infestations which may be

controlled in accordance with the requirements in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS:

Wilderness (General)

1. No SPB control action will be taken in wilderness unless an infestation threatens an essential RCW colony or occurs within 1/4 mile of susceptible host on State and private land or high value forest resources on Federal land and is predicted to spread onto that land causing unacceptable damage on that land. Infestations will be allowed to run their natural course unless the aforementioned resources are threatened.
2. No SPB control action will be taken in wilderness until a site-specific analysis of the infestation and surrounding site conditions is completed and documented. The site-specific analysis must indicate that successful control can be expected, given: (a) the intensity on the infestation; (b) the constraints applied to the control methods for use in wilderness, and (c) the resources available to control the spot.
3. IPM control methods for SPB are modified for use in wilderness as follows:
 - a. Cut and Remove - use helicopter, draft animals or cable skidding from public roads, or access, to remove infested logs. In visually sensitive zones such as along hiking trails, remove entire tree if feasible or otherwise remove slash from visual zone. Helicopter flight lines will avoid trails where possible.
 - b. Cut and Leave - no modification for use in wilderness except to cut slash to lay close to the ground or remove slash if feasible in visual zones to mitigate visual impact.
 - c. Cut and hand spray - same modifications as cut-and-leave method.
 - d. Pile and burn - this method will not be used in wilderness.
4. Monitoring, ground checking and tree felling crews will travel to infestations by non-motorized methods. Only under conditions in Item 5., following, will vehicles be allowed.
5. In extenuating circumstances, such as an intense outbreak, of lack of adequate resources to implement the preceding control methods, use of motorized ground vehicles may become necessary to protect essential colony sites or adjacent lands as described under alternative

4; however, use of such to do control work in wildernesses would require complete documentation of the extenuating circumstance and approval in advance by the Regional Forester. This deviation would be used only as a last resort when destruction of an essential RCW colony or unacceptable damage on adjacent lands is imminent.

When the use of motorized ground vehicles is permitted in wilderness by the Regional Forester, the following management requirements apply:

- a. Use only the existing roads or access ways. Limit road improvements to a standard no higher than required for safe passage of equipment and workers, and to protect the soil.
 - b. Return existing roads to as near their pre-use condition as soon as they have served their purpose.
 - c. Close all roads and access ways needed for SPB control to motorized public use. Only use associated with the control of the SPB and administrative use will be allowed.
 - d. Use fords (no structure) where possible, but only under conditions that will not visibly change physical stream characteristics. These conditions are:
 - (1) Bedrock stream bottom and lower banks.
 - (2) Rock or gravel stream bottom and lower banks.
 - e. Install temporary stream crossing structures using the largest fill materials available. Crossings will be removed completely after control operations are completed. Stream banks and bottoms will be reclaimed to approximately the original conditions.
 - f. To the greatest extent possible, schedule control activities when visitor use will be lowest.
6. All practical efforts to protect hardwoods will be made when SPB control actions are implemented. No hardwoods will be cut unless to insure the safety of crews or wilderness user.
 7. The affected and interested public will be informed or involved as appropriate in the decision to control in wilderness.

Wilderness (Protection of Essential RCW Colonies)

1. Only essential RCW colony sites and foraging area (approximately 125 acres per site) will be protected from SPB in wilderness.
 - a. Colonies not located on the periphery of the species range and,
 - b. Colonies located where viable population levels have not been met in the general forest area surrounding the wildernesses, according to the the RCW Recovery Plan.
2. An essential RCW colony in wilderness must be occupied or have been occupied during the previous breeding season. Colonies having been vacated long would not be protected in wilderness.
3. Spots located within 1/2 mile of essential colonies will be ground checked so predictions of spot growth with a SPB spot growth model can be made. Control action will only be taken on spots predicted to adversely affect the colony site and foraging area (totalling 125 acres) within the next 30 days and threatens the continued existence of the colony. If the spot is not predicted to impact the colony in 30 days, monitoring will continue until the spot warrants control under the 30-day criteria or is no longer considered a threat.
4. The management requirement under Wilderness (General) and General Forest Area and Wilderness (RCW Colony Site Protection), also apply.

Wilderness (Protection of Adjacent Lands)

1. Infestation must occur within 1/4 mile of susceptible host type on State and private land or high-value Federal forest resources (other than commercial timber), and be predicted to spread onto and cause unacceptable damage on these lands before control action is considered.
2. Aerial detection will be used to identify and locate for ground checking all infestations in wilderness within 1/4 mile of susceptible host on State, private or high-value Federal forest resources.
3. Infestation located within 1/4 mile of these lands will be ground checked as soon as possible (generally two days) following detection to collect data for input in a SPB spot growth model and determine the direction of spread.
4. Spot growth model predictions will be completed as soon as possible (generally three days) from ground check.

Forest Pest Management personnel will provide the extent of tree kill predicted by the model. This information will be used to estimate the location and extent of damage on adjacent lands from the uncontrolled infestation.

5. A site-specific analysis will be completed and documented on each infestation predicted to impact adjacent lands prior to implementing control action. It will assess the predicted impacts to adjacent land considering landowners' management objectives, age and condition of trees and the current threat of SPB impacts from other non-wilderness sources. Direct, indirect and cumulative impacts to the wilderness attributes and other resources will be assessed and considered equally in the control decision process.
6. The management requirements for control under Wilderness (General) and under General Forest Area and Wilderness (General) also apply.

General Forest Area and Wilderness (RCW Colony Site Protection)

1. Trees vacated by the SPB will not be cut or chemically treated unless necessary to insure public safety.
2. Inactive and relict cavity trees, if infested, or within a designated treatment buffer zone, may be cut to secure RCW colonies. (Requires evaluation by a Forest Service wildlife biologist.)
3. Uninfested trees within a 200-foot buffer around RCW cavity trees would not be cut or chemically treated unless such control efforts would be likely to prevent SPB infestation of cavity trees.
4. Disturbance in the colony sites will be kept to a minimum especially during the breeding season. No salvage operations will be conducted in active colony sites from March 1 through the time RCW young have fledged (approximately July-August). Control activities would be limited to the felling of trees or chemical treatment, or both, if necessary to secure the colony site during the breeding season.
5. Control activities with 1/2 mile of RCW colonies will conform to the guidelines set forth in the Forest Service Wildlife Habitat Management Handbook (FSH 2609.23R). Where cut and leave and cut-and-remove techniques are not feasible, and cut and hand spray is used, no standing trees will be sprayed. Pile and burn will not be used near active RCW colonies.

General Forest Area and Wilderness (General)

1. Site-specific analysis must be completed for any proposed SPB control action. This analysis will determine if a biological evaluation is necessary to determine if any threatened and endangered species or species being proposed for this status may be affected by the treatments. If the proposed treatment may affect one of these species or its habitat, consultation with the Fish & Wildlife Service is required under the Endangered Species Act. If sensitive species may be affected, coordination with the appropriate Federal or State agencies will occur. If adverse impacts could occur, the site-specific biological evaluation will identify possible mitigation measures.
2. Use control methods that will minimize soil disturbance.
3. Use of erosion control measures as soon as possible after the ground-disturbing, SPB-suppression activities are completed, to prevent or minimize erosion, sedimentation and long-term site deterioration.
4. Cultural resource surveys and coordination before soil-disturbing activities are implemented. Site evaluation and protection will minimize disturbance of significant sites.
5. The cut-and-hand-spray technique must only be used according to general direction set forth in Forest Service Manual Chapter 2150, Pesticide-Use Management. Label instructions for insecticides registered for beetle control must be followed.
6. Standing trees will not be sprayed with insecticides.
7. Insecticides will not be used in a manner that would adversely affect threatened or endangered species.
8. The potential risk to humans and the environment will be minimized by applying insecticides only according to label instruction, Forest Service policies and other Federal regulations. Application will be supervised by a certified pesticide applicator. Areas treated with insecticide will be signed and closed to firewood collection.
9. Workers who apply insecticides will be trained to ensure minimum impacts and maximum effectiveness. Only those methods that assure proper application of insecticides on the infested tree bole would be used.
10. Riparian ecosystems that encompass floodplains and wetlands will receive appropriate protection. As a minimum, riparian areas will extend 100 feet from the

edge of all perennial streams and other perennial water bodies, including lakes. Site investigations to identify riparian areas and floodplains will consider the soil and plant characteristics of the site, and will be guided by appropriate Forest Service direction and State requirements. Roads that cross riparian areas will be stabilized with rip-rap, vegetative establishment, or other appropriate methods.

11. Logging equipment will be kept out of perennial and intermittent stream channels except on approved, designated crossings. Crossings will be at right angles to the stream or riparian area. -*
7. Congressionally designated wilderness areas are withdrawn from operation of the mining and mineral leasing laws. Use stipulation as needed for existing mineral leases or permits.

NOT SUITABLE 7

Description

Total Acres -- 940

The analysis area covered under this prescription is the Leaf Wilderness. The visual quality objective is preservation, and the recreation opportunity spectrum is semi-primitive non-roaded. The analysis area covered by this prescription was assigned to the "Wilderness" FORPLAN prescription.

General Direction

The Leaf wilderness will be managed to protect the existing wilderness attributes. Emphasis is to manage the area in accordance with the Wilderness Act of 1964. The area offers semi-primitive recreation opportunities: moderate level of solitude, few encounters with people; moderate opportunity for challenge, risk, and self-reliance, moderate level of on-site public safety (reasonable level of woodsmanship skills is assumed of visitor). Management activities are integrated in such a way that visitors leave only limited and site-specific evidence of their passing. Unacceptable levels of past use are rehabilitated and the affected area restored. Human travel is principally on abandoned roadways.

Management Practices

1. Wilderness planning, inventory, and use administration. (B01, B02, B03)
2. Trail construction, reconstruction, and maintenance. (A12, A13, A14)

Standards and Guidelines

1. An implementation plan will be written for each wilderness following FSM 2322 direction. Provide regulatory signing, public notice, and enforce regulation.
2. Manage as semi-primitive nonmotorized. Allow use activities that do not deteriorate the existing wilderness qualities. Monitor use by visual count of vehicles in parking areas, and inspection of impact areas. If wilderness values begin to deteriorate, distribute use.
3. Construct and maintain trails to wilderness standards.
4. Confine, contain, or control all fires in accordance with Fire Suppression in Wilderness Areas, Appendix F-1.
5. Prescribed fire may be used as a management tool in accordance with the Regional Forester's policy.
- 6.*-Epidemic conditions of insect or disease may be controlled with Chief's approval except for SPB infestations which may be controlled in accordance with the requirements in the ROD/SPB, Section VI, MANAGEMENT REQUIREMENTS:

Wilderness (General)

1. No SPB control action will be taken in wilderness unless an infestation threatens an essential RCW colony or occurs within 1/4 mile of susceptible host on State and private land or high value forest resources on Federal land and is predicted to spread onto that land causing unacceptable damage on that land. Infestations will be allowed to run their natural course unless the aforementioned resources are threatened.
2. No SPB control action will be taken in wilderness until a site-specific analysis of the infestation and surrounding site conditions is completed and documented. The site-specific analysis must indicate that successful control can be expected, given: (a) the intensity on the infestation; (b) the constraints applied to the control methods for use in wilderness, and (c) the resources available to control the spot.
3. IPM control methods for SPB are modified for use in wilderness as follows:
 - a. Cut and Remove - use helicopter, draft animals or cable skidding from public roads, or access, to remove infested logs. In visually sensitive zones such as along hiking trails, remove entire tree if feasible or otherwise remove slash from visual zone. Helicopter flight lines will avoid trails where possible.
 - b. Cut and Leave - no modification for use in wilderness except to cut slash to lay close to the ground or remove slash if feasible in visual zones to mitigate visual impact.
 - c. Cut and hand spray - same modifications as cut-and-leave method.
 - d. Pile and burn - this method will not be used in wilderness.
4. Monitoring, ground checking and tree felling crews will travel to infestations by non-motorized methods. Only under conditions in Item 5., following, will vehicles be allowed.
5. In extenuating circumstances, such as an intense outbreak, of lack of adequate resources to implement the preceding control methods, use of motorized ground vehicles may become necessary to protect essential colony sites or adjacent lands as described under alternative 4; however, use of such to do control work in wildernesses would require complete documentation of the extenuating circumstance and approval in advance by the

Regional Forester. This deviation would be used only as a last resort when destruction of an essential RCW colony or unacceptable damage on adjacent lands is imminent.

When the use of motorized ground vehicles is permitted in wilderness by the Regional Forester, the following management requirements apply:

- a. Use only the existing roads or access ways. Limit road improvements to a standard no higher than required for safe passage of equipment and workers, and to protect the soil.
 - b. Return existing roads to as near their pre-use condition as soon as they have served their purpose.
 - c. Close all roads and access ways needed for SPB control to motorized public use. Only use associated with the control of the SPB and administrative use will be allowed.
 - d. Use fords (no structure) where possible, but only under conditions that will not visibly change physical stream characteristics. These conditions are:
 - (1) Bedrock stream bottom and lower banks.
 - (2) Rock or gravel stream bottom and lower banks.
 - e. Install temporary stream crossing structures using the largest fill materials available. Crossings will be removed completely after control operations are completed. Stream banks and bottoms will be reclaimed to approximately the original conditions.
 - f. To the greatest extent possible, schedule control activities when visitor use will be lowest.
6. All practical efforts to protect hardwoods will be made when SPB control actions are implemented. No hardwoods will be cut unless to insure the safety of crews or wilderness user.
 7. The affected and interested public will be informed or involved as appropriate in the decision to control in wilderness.

Wilderness (Protection of Essential RCW Colonies)

1. Only essential RCW colony sites and foraging area (approximately 125 acres per site) will be protected from SPB in wilderness.

- a. Colonies not located on the periphery of the species range and,
 - b. Colonies located where viable population levels have not been met in the general forest area surrounding the wildernesses, according to the the RCW Recovery Plan.
2. An essential RCW colony in wilderness must be occupied or have been occupied during the previous breeding season. Colonies having been vacated long would not be protected in wilderness.
 3. Spots located within 1/2 mile of essential colonies will be ground checked so predictions of spot growth with a SPB spot growth model can be made. Control action will only be taken on spots predicted to adversely affect the colony site and foraging area (totalling 125 acres) within the next 30 days and threatens the continued existence of the colony. If the spot is not predicted to impact the colony in 30 days, monitoring will continue until the spot warrants control under the 30-day criteria or is no longer considered a threat.
 4. The management requirement under Wilderness (General) and General Forest Area and Wilderness (RCW Colony Site Protection), also apply.

Wilderness (Protection of Adjacent Lands)

1. Infestation must occur within 1/4 mile of susceptible host type on State and private land or high-value Federal forest resources (other than commercial timber), and be predicted to spread onto and cause unacceptable damage on these lands before control action is considered.
2. Aerial detection will be used to identify and locate for ground checking all infestations in wilderness within 1/4 mile of susceptible host on State, private or high-value Federal forest resources.
3. Infestation located within 1/4 mile of these lands will be ground checked as soon as possible (generally two days) following detection to collect data for input in a SPB spot growth model and determine the direction of spread.
4. Spot growth model predictions will be completed as soon as possible (generally three days) from ground check. Forest Pest Management personnel will provide the extent of tree kill predicted by the model. This information will be used to estimate the location and extent of damage on adjacent lands from the uncontrolled infestation.

5. A site-specific analysis will be completed and documented on each infestation predicted to impact adjacent lands prior to implementing control action. It will assess the predicted impacts to adjacent land considering landowners' management objectives, age and condition of trees and the current threat of SPB impacts from other non-wilderness sources. Direct, indirect and cumulative impacts to the wilderness attributes and other resources will be assessed and considered equally in the control decision process.
6. The management requirements for control under Wilderness (General) and under General Forest Area and Wilderness (General) also apply.

General Forest Area and Wilderness (RCW Colony Site Protection)

1. Trees vacated by the SPB will not be cut or chemically treated unless necessary to insure public safety.
2. Inactive and relict cavity trees, if infested, or within a designated treatment buffer zone, may be cut to secure RCW colonies. (Requires evaluation by a Forest Service wildlife biologist.)
3. Uninfested trees within a 200-foot buffer around RCW cavity trees would not be cut or chemically treated unless such control efforts would be likely to prevent SPB infestation of cavity trees.
4. Disturbance in the colony sites will be kept to a minimum especially during the breeding season. No salvage operations will be conducted in active colony sites from March 1 through the time RCW young have fledged (approximately July-August). Control activities would be limited to the felling of trees or chemical treatment, or both, if necessary to secure the colony site during the breeding season.
5. Control activities with 1/2 mile of RCW colonies will conform to the guidelines set forth in the Forest Service Wildlife Habitat Management Handbook (FSH 2609.23R). Where cut and leave and cut-and-remove techniques are not feasible, and cut and hand spray is used, no standing trees will be sprayed. Pile and burn will not be used near active RCW colonies.

General Forest Area and Wilderness (General)

1. Site-specific analysis must be completed for any proposed SPB control action. This analysis will determine if a biological evaluation is necessary to determine if any threatened and endangered species or species being

proposed for this status may be affected by the treatments. If the proposed treatment may affect one of these species or its habitat, consultation with the Fish & Wildlife Service is required under the Endangered Species Act. If sensitive species may be affected, coordination with the appropriate Federal or State agencies will occur. If adverse impacts could occur, the site-specific biological evaluation will identify possible mitigation measures.

2. Use control methods that will minimize soil disturbance.
3. Use of erosion control measures as soon as possible after the ground-disturbing, SPB-suppression activities are completed, to prevent or minimize erosion, sedimentation and long-term site deterioration.
4. Cultural resource surveys and coordination before soil-disturbing activities are implemented. Site evaluation and protection will minimize disturbance of significant sites.
5. The cut-and-hand-spray technique must only be used according to general direction set forth in Forest Service Manual Chapter 2150, Pesticide-Use Management. Label instructions for insecticides registered for beetle control must be followed.
6. Standing trees will not be sprayed with insecticides.
7. Insecticides will not be used in a manner that would adversely affect threatened or endangered species.
8. The potential risk to humans and the environment will be minimized by applying insecticides only according to label instruction, Forest Service policies and other Federal regulations. Application will be supervised by a certified pesticide applicator. Areas treated with insecticide will be signed and closed to firewood collection.
9. Workers who apply insecticides will be trained to ensure minimum impacts and maximum effectiveness. Only those methods that assure proper application of insecticides on the infested tree bole would be used.
10. Riparian ecosystems that encompass floodplains and wetlands will receive appropriate protection. As a minimum, riparian areas will extend 100 feet from the edge of all perennial streams and other perennial water bodies, including lakes. Site investigations to identify riparian areas and floodplains will consider the soil and plant characteristics of the site, and will be guided by

appropriate Forest Service direction and State requirements. Roads that cross riparian areas will be stabilized with rip-rap, vegetative establishment, or other appropriate methods.

11. Logging equipment will be kept out of perennial and intermittent stream channels except on approved, designated crossings. Crossings will be at right angles to the stream or riparian area. -*

7. Congressionally designated wilderness areas are withdrawn from operation of the mining and mineral leasing laws. Use stipulation as needed for existing mineral leases or permits.

NOT SUITABLE 8

Description

Total Acres -- 7,987

Harrison Experimental Forest	3,985 acres
Tallahatchie Experimental Forest	3,968 "
Forest Service Hydrology Laboratory	34 "

The visual quality objective for these areas is modification and maximum modification. The recreation opportunity spectrum exists as roaded natural.

The analysis areas covered by this prescription were assigned to the "Minimum Level" FORPLAN prescription.

General Direction

The Forest Service Hydrology Laboratory and the Tallahatchie Experimental Forest conduct research in forest watersheds. The Harrison Experimental Forest conducts research in southern pine genetics. All of these areas are administered by the Southern Forest Experimental Station.

Management Practices

1. Suppress all wildfires. (P04)
2. Prescribe burn approximately 1000 acres of pine forest type. (P14)
3. Prepare sale appraisals and contracts for salvage and timber removal within the experimental forests. (E06)
4. Maintain system roads. (L19)

Standards and Guidelines

1. The National Forests in Mississippi will be responsible for fire protection and suppression, salvage activities resulting from insects, disease, storms, control of animals, timber sale appraisals, contracts and road maintenance.
2. Allow no new special use permits that will adversely affect research projects or research natural areas.
3. Use stipulations as needed in mineral permits and leases to protect investment in research projects and research natural areas.
4. Timber sale activities in experimental forests will be administered by the National Forests in Mississippi.

5. Fire suppression will be in accordance with the current fire action plan.

NOT SUITABLE 9

Description

Total Acres	34,563
Utility Corridors	5,071
Permanent Wildlife Openings	955
Slough Wildlife Buffers	2,389
Pitcher Plant Flats	12,000
Other Unsuitable Forest Land	14,148

The analysis areas covered under this prescription consist of those areas unsuitable for timber production but which contribute significantly to diversity and wildlife habitat capability.

Utility corridors are areas under special use to electric and gas utility companies. They contain principal transmission lines and are maintained in an open grassy state.

Permanent wildlife openings are areas of 1-5 acres which are maintained as openings and/or food plots by either the Forest Service or the Mississippi Department of Conservation under a cooperative agreement. The levees for the Greentree Reservoirs on the Delta National Forest are in this category and total 407 acres.

Slough wildlife buffers are areas which were identified in the Delta Unit Plan for Management as waterfowl habitat. They represent 3 chain buffer zones around selected sloughs and beaver ponds. The sloughs were selected for water control structures.

Pitcher Plant flats are areas of poorly drained soils with a high water table 6-12 months of the year and a site index less than 60 for slash pine. Some of these occur in flood plains and others as upland flats. Most of these are open grassy savannas and/or wet prairies with scattered slash pine. Some of these were planted to slash pine in the 1950's and contain dense stands of severely stunted and stagnated trees.

Other unsuitable forest land consists of bay heads, titi thickets, other very poorly drained sites, limestone outcroppings and a sterile sand-gravel river outwash. The bulk of this area occurs on the lower De Soto National Forest on the Biloxi and Black Creek Management Areas. The limestone outcropping is on the Trace Management Area and the river outwash is on the Bude Management Area.

Most of this analysis area has a recreation opportunity spectrum class of roaded natural with a visual quality objective of maximum modification.

The analysis areas covered by this prescription were assigned to the "Minimum Level" FORPLAN prescription.

General Direction

The primary purpose is to enhance the wildlife habitat by providing a permanent amount of diversity and increasing the habitat capability of the area through direct wildlife practices.

Management Practices

1. Maintain openings by mowing and/or chemical treatment. (MIH Code C01-604, C02-611)
2. Plant wildlife food and cover crops. (MIH Code C02-609)
3. Construct slough structures. (MIH C03-625)
4. Prescribe burn all areas except those in hardwood forest type and the utility corridors. (MIH C02-610)
5. Return stagnated pine planted areas to open grassy condition. (MIH C01-604)
6. Thin to enhance wildlife. (MIH C02-610)
7. Maintain wood duck boxes. (MIH C04-636)
8. Administer existing special use permits for existing utility corridors. (MIH J01-051)

Standards and Guidelines

1. Openings will be treated annually to prevent brush encroachment.
2. Planting of wildlife crops will be done in accordance with the Mississippi Erosion Control and Wildlife Planting Guide.
3. Maintain slough structures and greentree levees and structures to Region 8 standards.
4. Prescribe burn on a 3-5 year cycle when adjacent National Forest land is burned.
5. Maintain wood duck boxes annually.
6. Retain existing utility corridors. These corridors will be managed by the standards and guidelines contained in the individual special use permits.

NOT SUITABLE 10

Description

Total Acres:	3373
Dowling Bayou Archaeological Study Site	10
Pitcher Plant Botanical Study Area	29
Railroad Creek Titi Botanical Study Area	881
Cypress Bayou Botanical Study Area	298
Noxubee Crest Botanical Study Area	563
Shagbark Hickory Botanical Study Area	50
Little Florida Botanical Study Area	50
Loblolly Bay Botanical Study Area	40
Chuquatonchee Bluffs Botanical Study Area	90
LA-2 Botanical Study Area	25

Sandy Creek National Landmark Study Area	300
Granny Creek Proposed Research Natural Area	120
LA-6 Botanical Study Area	102
Thompson Creek Bottom Botanical Study Area	30
Choctaw #4 Botanical Study Area	80
Ragland Hills Botanical Study Area	286
Singleton Prairie Botanical Study Area	80
Durand Oak Prairie Botanical Study Area	40
Nutmeg Hickory Proposed Research Natural Area	150

The analysis areas covered under this prescription consist of those areas withdrawn from timber production by the Forest Supervisor pending their resolution for official designation as "Special Areas."

The Dowling Bayou Archaeological Site is a recently discovered Indian Mound and village site found on the Delta National Forest. It dates from the late woodland period (800 A.D.) and is a classic example of the mounds of this period.

The Pitcher Plant area is composed of three rather unique areas of pitcher plants. The plant composition in these areas varies from the adjacent wet prairie and savannas. The proposed site contains a larger amount of many unique and sensitive plants such as pine lily, St. John's wart, club moss, and the insectivorous plants - yellow pitcher plant, parrot pitcher plant and thread-leaf sundew.

The Railroad Creek Titi area is on the flood plain of Railroad Creek and has had few management activities in the past. It is composed of black titi (*Cliftonia monophylla*) and white titi (*Cyrilla racemiflora*) and associated species with a widely scattered overstory of cypress and slash pine. The largest known white titi or swamp cyrilla (American Forestry Association Champion Tree) is found in this area.

The Cypress Bayou area is a large stand of relatively undisturbed Mississippi River Delta bottomland hardwood 150-250 years old. Its designation as a botanical area would allow trail development and encourage use by the general public.

The Noxubee Crest area is composed of a typical relatively undisturbed mixed pine-hardwood forest. Much of the highland is old field areas abandoned in the 1930's with the steep side slopes and creek bottom containing fine examples of 100 year old shortleaf pine-oak-hickory forest types. This area encompasses the headwaters of a branch of the Little Noxubee River.

The Shagbark Hickory area is an area utilized by the Mississippi State University for field instruction. It is an example of several hickory species and their associated overstory and understory plants.

The Little Florida area has deep white sand dunes, saw palmetto, pines, and stunted oaks. It is one of the best remaining sites in the state for the state endangered southern hognose snake and the threatened black pine snake and gopher tortoise.

The Loblolly Bay area contains one of the two known areas of loblolly bay in the state.

The Chuquatonchee Bluffs contains many unusual plants for Mississippi. Among them are butternut, Jacob's ladder, wild ginger, and others. Because of the unique nature of the area and presence of some rare and/or endangered species, the area should be protected from cutting and fire.

Areas LA-2 and LA-6 are areas of old growth that is rare in the state as identified by a study done cooperatively by the Office of Surface Mining and the Mississippi Natural Heritage Program.

Thompson Creek Bottom is made up of two small areas of large timber up to four feet in diameter. The species are white oak, southern magnolia, and loblolly pine.

Choctaw #4 is an area of old growth trees that needs to be evaluated for potential uniqueness before any cutting is done in the area.

The Ragland Hills area is known for its unusually high species diversity. Most of this area is in private ownership, but there are 286 acres of National Forest lands which may warrant special classification. The Mississippi Natural Heritage Program has found that lands in the general area are eligible for registration with the Mississippi Natural Areas Registry.

The Singleton Prairie and Durant Oak Prairie sites are relics of grassland areas which have been identified in the Mississippi Natural Heritage Program inventory.

The Nutmeg Hickory area is an example of a prairie forest. It contains large nutmeg hickories, Durand Oaks, and shellbark hickories.

These areas have been placed in the "Roaded Natural" recreation opportunity spectrum class with a visual quality objective of retention.

The analysis areas covered by this prescription were assigned to the "Recreation" FORPLAN prescription.

General Direction

These areas will be protected until their status is resolved for a variety of reasons. The proposed Noxubee Crest Botanical Area contains qualities which merit protection. The Dowling Bayou Archaeological complex contains important cultural and historical values, and has been determined to be eligible for the National Register of Historic Places. The proposed botanical areas all represent unusual ecosystems of local and regional significance.

Retain and protect the values which may qualify each area, conduct a study of the areas, and prepare a report recommending for or against designation.

Management Practices

1. Keep exact location of Indian Mounds confidential. (MIH Code A04)
2. Construct trails. (MIH Code A-11, L-22, A01)
3. Prescribe burn on 3-5 year cycle. (MIH Code P-14)
4. Develop parking facilities. (MIH L-24, A06)
5. Maintain unique values of all areas. (MIH A08)
6. Upon designation of these areas develop a management plan. (MIH A01)

Standards and Guidelines

1. Construct trails to standards found in the field guide "Trails South".
2. Restrict special use permits to activities consistent with a special classification.
3. Suppress all wildfires to maintain unique values.
4. These areas are closed to ORV use.
5. Prescribe burn in conjunction with adjacent National Forest lands.

NOT SUITABLE 11

Description

Total Acres	533
Owl Creek Mounds	
Archaeological Site	29
Bienville Pines	
Scenic Area	189
Harrell Prairie	
Botanical Area	135
Red Gum Research	
Natural Area (RNA)	40
Over-cup Oak -	
Water Hickory RNA	40
Green Ash-Sugarberry RNA	60
"Unmanaged Forty"	40

The analysis areas covered under this prescription consist of those areas withdrawn by the Secretary of Agriculture except the "unmanaged forty". The "unmanaged forty" is part of the 1935 Gavin Slash Pine Plantation and has been withdrawn from management activities by Forest Supervisors since 1945. It is part of the Gavin Auto Tour.

The three RNA's were established on the Delta National Forest in 1943 to preserve stands of old growth bottomland hardwood timber

which were once common in the lower Mississippi River Valley. The oldest trees in the Red Gum area range from 250-300 years old while those in the overcup oak and green ash areas range from 200-250 years old. They are on the National Register of Natural Landmarks. Their purpose is for scientific research, and use by the general public isn't encouraged.

The Harrell Prairie Botanical Area was established on the Bienville National forest in 1980 to preserve a remnant of the once extensive "Black Belt" prairie area of eastern Mississippi and Alabama. It is on the National Register of Natural Landmarks.

The Bienville Pines Scenic Area was established in 1964 on the Bienville National Forest and preserves a stand of virgin loblolly pine. It is on the National Register of Natural Landmarks.

The Owl Creek Mounds Archaeological Site was established in 1964. It contains Indian Mounds dating from the woodland period. This area is on the National Register of Historic Places.

The Owl Creek Mounds, Bienville Pines, and Unmanaged Forty have been placed in the recreation opportunity spectrum "Rural" classification with a visual quality objective of retention. The Harrell Prairie and RNA's have been placed in the "Roaded Natural" recreation opportunity spectrum class with a visual quality objective of retention.

The analysis areas covered by this prescription were assigned to the "Minimum Level" FORPLAN prescription.

General Direction

The primary purpose is to protect, preserve, and manage these areas for the purpose for which they were established.

Management Practices

1. Prescribe burn the Bienville Pines and Harrell Prairie sites. (MIH Code P-15)
2. Maintain trails and signs in Bienville Pines Scenic Area. (MIH Code A12)
3. Maintain Owl Creek mound site, fence and signs. (MIH A04, A07)
4. Maintain unique values of RNA's. (MIH Code A08)
5. Protect Unmanaged Forty from prescribed burning and wildfire. (MIH P-14)

Standards and Guidelines

1. Maintain trails in Bienville Pines Area according to Forest-wide standards and guidelines (pg 4-9).
2. Restrict special use permits for these areas to activities consistent with their special status.
3. Prescribe burn Bienville Pines and Harrell Prairie Areas in conjunction with adjacent general forest area.

4. Suppress all wildfires to maintain their unique values.
5. These areas are closed to ORV use.

NOT SUITABLE 12

Description

Total Acres	1210
Paul B. Johnson State Park	84
Corps of Engineers Water Project	929
Soil Conservation Service Plant Materials Center	197

The Paul B. Johnson State Park is a Mississippi State Park containing fishing, swimming, camping, picnicking, boating, concessions, and cabins. The upper part of the lake and a few campsites exist on National Forest land.

The Corps of Engineers (COE) Water Project is a flood control project to enhance drainage in the Yazoo River Basin. Under this project the Delta National Forest becomes a sump area. The memorandum of understanding removes the spoil banks from the regulated timber base by providing for their use by the COE when necessary.

The Soil Conservation Service Plant Materials Center has an administrative site with field plantings located on National Forest land.

The visual quality objective is maximum modification except that Paul B. Johnson State Park is retention. The recreation opportunity index is "Roaded Natural."

The analysis areas covered by this prescription were assigned to the "Minimum Level" FORPLAN prescription.

General Direction

All areas will continue to be managed by the appropriate agency under the terms and conditions of the special use permit and/or memorandum of understanding. When the other agency use is no longer needed, the area will be returned to full administration by the Forest.

Management Practices

1. None

Standards and Guidelines

1. Other agency responsibility is spelled out under the memorandum of understanding and/or special use permit.