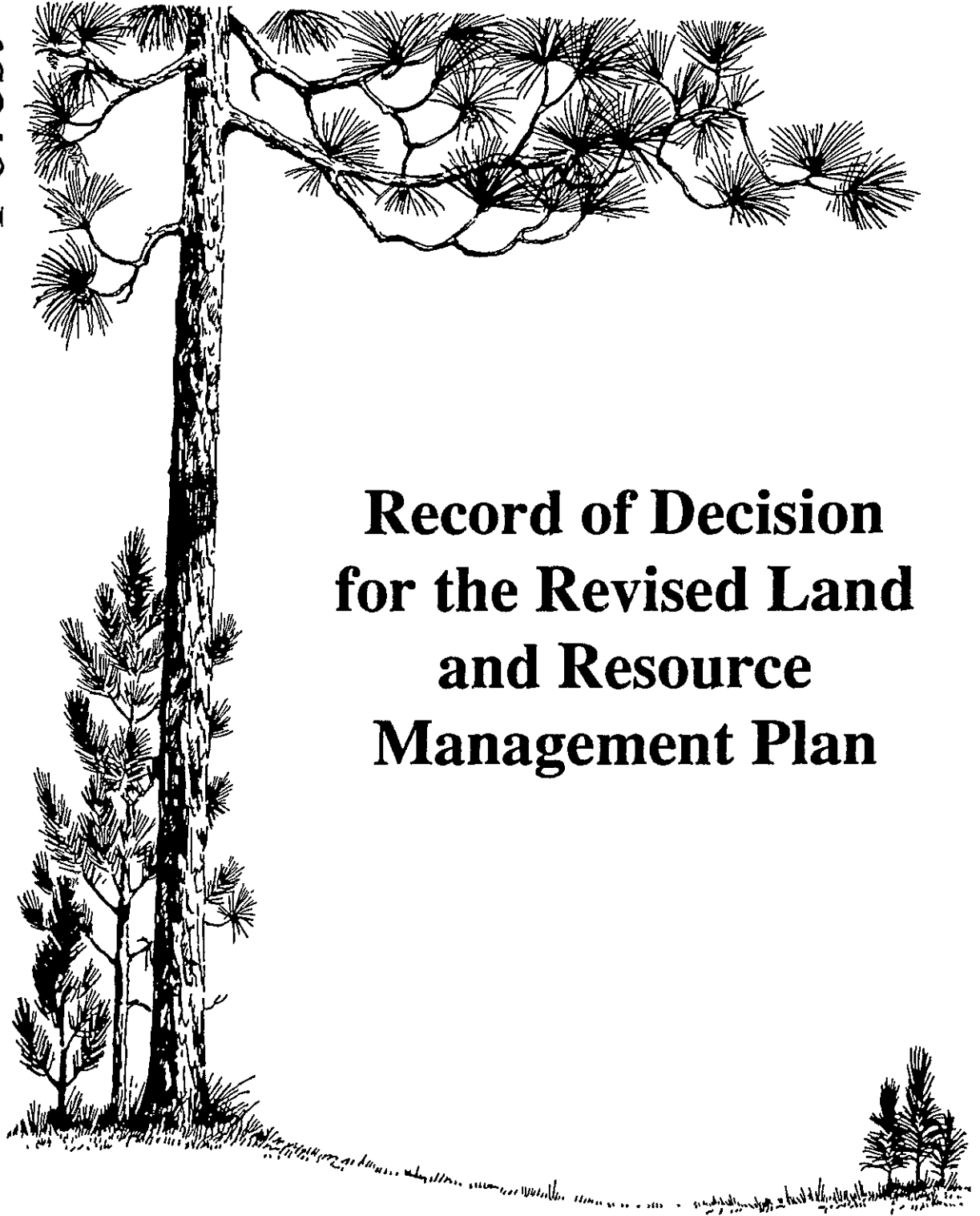


FILE COPY

*National  
Forest*

**Francis Marion**



**Record of Decision  
for the Revised Land  
and Resource  
Management Plan**



United States  
Department of Agriculture  
Forest Service  
Southern Region

**Record of Decision  
for the Revised Land and Resource  
Management Plan  
Francis Marion National Forest**

**Charleston and Berkeley Counties  
South Carolina**

**USDA Forest Service**

**March 1996**

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# Acronyms

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ASQ—Allowable Sale Quantity  
CEQ—Council of Environmental Quality  
CFR—Code of Federal Regulations  
DEIS—Draft Environmental Impact Statement  
DFC—Desired Future Condition  
FEIS—Final Environmental Impact Statement  
HMA—Habitat Management Area  
LTSYC—Long-term Sustained Yield Capacity  
MA—Management Area  
MIS—Management Indicator Species  
NEPA—National Environmental Protection Act  
NFMA—National Forest Management Act  
OHV—Off-highway Vehicles  
PETS—Proposed, Endangered, Threatened and Sensitive Species  
PNV—Present Net Value  
RCW HMA—Red-cockaded Woodpecker Habitat Management Area  
ROD—Record of Decision  
RPA—Resource Planning Act  
R8—RCW—*Final Environmental Impact Statement for the Management of the Red-cockaded Woodpecker and its Habitat on National Forests in the Southern Region*  
USDI—United States Department of the Interior  
WMA—Wildlife Management Area

# Introduction

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## Basis and Need for the Decision

This document is a public Record of Decision (ROD) that documents my decision and rationale for approving the Revised Land and Resource Management Plan (Forest Plan) for the Francis Marion National Forest.

The Final Environmental Impact Statement (FEIS) and Forest Plan were developed according to the National Forest Management Act (NFMA), its implementing regulations, 36 CFR 219, National Environmental Policy Act (NEPA), and the Council of Environmental Quality (CEQ) regulations, 40 CFR 1500-1508.

The Forest Plan is part of the long-range resource planning framework established by the Resource Planning Act (RPA). NFMA requires all forests in the National Forest System to develop plans that direct resource management activities on the Forest. These plans are to be revised when conditions have significantly changed or at least every 15 years. The current Land and Resource Management Plan for the Francis Marion National Forest, approved in April 1985, directed the management of the Francis Marion until 1989 when Hurricane Hugo created a path of destruction across the Forest. The damage caused by Hugo to timber, wildlife, recreation and other resources so changed the landscape and our ability to produce goods and services that a revision to the Forest Plan was necessary.

This Forest Plan establishes a framework for future decision making by outlining a broad, general program for achieving goals and objectives. The Forest Plan affects and is affected by decisions made at many levels. Decisions that are made outside the Forest Plan such as national and regional policy and regulations provide direction for decisions made in the Forest Plan. The Forest Plan is carried out at the project level through implementing specific projects at specific locations such as building a trail, developing a campground or thinning a timber stand.

The Forest Plan does not direct specific management activities for specific locations, nor does it dictate day-to-day administrative activities needed to carry on the Forest Service's internal operations. However, by applying Forest-wide and management area standards and guidelines, the Forest Plan significantly influences the design, execution and monitoring of site-specific activities.

The FEIS that accompanies the Forest Plan provides analytical data that discloses the environmental consequences of all the alternative management strategies considered in detail. The FEIS discloses the effects of these alternatives and how they respond to issues and concerns.

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## **Public Involvement**

The Forest conducted a public involvement program as required by the National Forest Management Act. Formal activities included printing a Notice of Intent to prepare an Environmental Impact Statement, an initial issue identification process, a formal public comment period on draft documents, numerous public meetings, presentations, and informational distributions. In addition to formal activities, the Forest employees informally explained the purpose of the Forest Plan, and how to effectively participate in the process.

In August of 1994, a Draft Environmental Impact Statement (DEIS) and a Proposed Revised Land and Resource Management Plan (Proposed Forest Plan) were published. The public had 90 days to comment on these documents. Based on responses received, the Forest modified the alternatives, corrected technical and computational errors, and further clarified portions of the text in both documents. No new alternatives were developed. Forest personnel briefed my staff and me on these changes as they evolved. I have used this information to make my decision.

# Decision

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My decision is to approve, adopt, and implement the Forest Plan which accompanies the FEIS. This decision applies only to National Forest System lands of the Francis Marion National Forest. It does not apply to any other federal, state or private lands.

This Forest Plan does not make the "lands available for leasing decision" or the "leasing decision" due to low potential for oil and gas occurrence, and the lack of industry interest. If either of these situations change, the Forest will conduct the required environmental evaluations and documentation required to reach a decision (36 CFR 228E).

My decision to approve the Forest Plan is based on its potential to maximize net public benefits consistent with the principles of multiple use and sustained yield of forest resources. The Forest Plan addresses a broad range of public issues and management concerns; supplies a mixture of public uses and products, responds to environmental values and conditions desired by the public; and is sensitive to ecological principles by emphasizing the maintenance of healthy, diverse and sustainable forest ecosystems.

This Forest Plan enhances the compatibility of multiple resource uses and increases environmental sensitivity of commodity production. It balances economic and resource values and recognizes the equal importance of all natural resources as well as the continued availability of goods and services the public expects from the Forest. Although none of the alternatives considered would satisfy everyone completely, the Forest Plan strikes a balance among competing interests in order to achieve the maximum net public benefits from forest resources.

The most significant differences between the Proposed Forest Plan and the Forest Plan include: estimated regeneration timber harvest in damaged bottomland and swamp hardwoods and subsequent adjustments to Allowable Sale Quantity (ASQ) and timber sale schedule; modified red-cockaded woodpecker habitat management area (RCW HMA) consistent with *Final Environmental Impact Statement for the Management of the Red-cockaded Woodpecker and its Habitat on National Forests in the Southern Region (R8-RCW)*; a red-cockaded woodpecker population objective localized to Francis Marion National Forest conditions; and reduced estimates of first planning period recreational construction and associated costs.

The program decisions I make with this ROD are accompanied by the necessary supporting NEPA analysis and disclosure required by law and regulation. These decisions determine:

The multiple-use goals, objectives, and desired condition for the Forest including goods and services expected.

Multiple-use management area prescriptions for each management area including probable and proposed activities.

Identify land that is suitable for timber production.

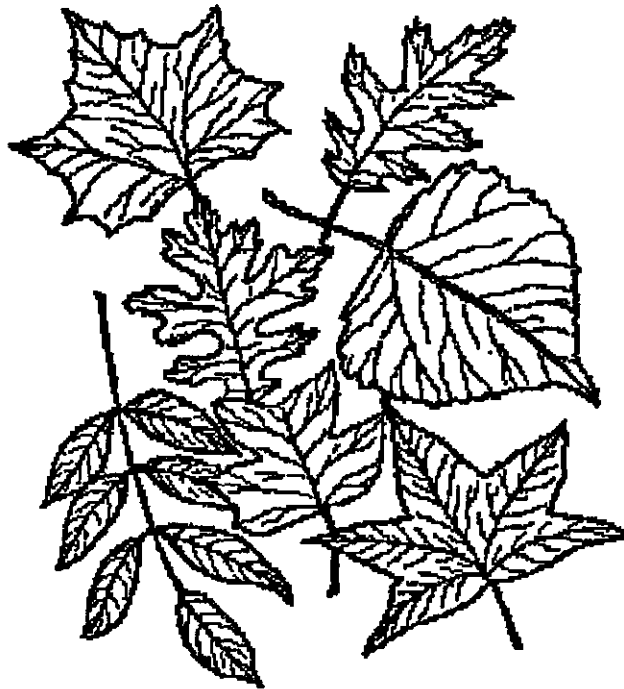
The allowable sale quantity and the associated sale schedule.

Recommendations for wilderness areas.

Requirements for monitoring and evaluation.

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Additionally, as required by the ROD for the R8-RCW, I am establishing the RCW HMA and red-cockaded woodpecker population objectives for the Francis Marion National Forest. I am also approving for the Francis Marion National Forest minor modifications to the red-cockaded woodpecker management and monitoring requirements included in the R8-RCW ROD.





# Rationale for Decision

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In my judgement, the Forest Plan maximizes net public benefits and best responds to the issues. It balances adequate protection of the environment with production of both monetary and non-monetary resource outputs. I approached my decision by looking at the issues and the public comments on them and then comparing the consequences of various alternatives on the issues. In arriving at this decision, my staff and I were thoroughly briefed on the Forest Plan and alternatives presented in the FEIS.

This section focuses on the major aspects and concerns expressed on the Proposed Forest Plan and DEIS. It does not discuss all of the issues considered in developing the Forest Plan. These are documented in the accompanying FEIS.

## Recreation

The Francis Marion National Forest is managed for people. It provides the majority of the public land available for outdoor recreation in the lowcountry of South Carolina. Recreation is a popular and widely-supported use of the Forest. Population growth, increased urbanization in areas adjacent to the Forest and an overall concern for the environment have heightened interest in the Forest's resources, including its recreational resources.

Recreationists expect both developed experiences (camping, picnicking) and dispersed experiences (trail riding, hunting and fishing). The Francis Marion National Forest offers both.

### Developed Recreation

The recreation demand study indicates that developed recreational uses will continue to increase. The objective of the Forest Plan is to increase the capacity of the recreational facilities.

Public comments on the DEIS identified concerns about the Forest's ability to complete the recreational construction in the first period based on historically low construction dollars for recreation. There were also concerns about the Forest's ability to maintain facilities based on traditionally low maintenance budgets for recreation.

Based on these comments, I have modified our estimate of when recreational facility construction will take place. During the first 10-year period, the construction estimate includes one campground and one horse camp.

I believe that this is a more realistic estimate and will meet our Forest goal of developing and enhancing a broad spectrum of recreational opportunities that are accessible to as many people as possible and provide a safe, quality recreational experience.

I have also revised the budget estimates for the recreational program. The Proposed Forest Plan estimated that the Sewee Visitor Center would cost \$3,000,000 to construct and was included in all alternatives. The US Department of the Interior (USDI) Fish and Wildlife Service funded the entire construction cost of the Visitor Center; therefore, the \$3,000,000 was removed from all alternatives. Also, the estimates of construction costs for the campgrounds now reflect a decreased funding

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amount. It was much more realistic to expect the large dollar construction projects, such as campgrounds, be completed through cooperative agreements and partnership agreements and that was reflected in the estimated budgets.

### **Dispersed Recreation**

Hiking, mountain biking, Off-highway vehicles (OHV) trail riding, horseback riding, canoeing, hunting and fishing are popular activities. Demand studies indicate that more visitors will participate in these types of activities in the future. The Francis Marion National Forest can provide a wide variety of experiences. The objective of the Forest Plan is to increase the trail system to 160 miles in the next 10 years.

There were comments throughout the process on the need to address problems on some existing trails. While the Forest Plan does not make site-specific decisions, my commitment to a high quality trail experience cannot be overstated.

### **Off-Highway Vehicles**

The majority of the comments concerned cross country vehicular travel and OHV trail development. Off-highway vehicles are motorized vehicles capable of cross-country travel. Comments ranged from opposing closing of the Forest to cross-country vehicular travel, including hunters and people with disabilities to support for closing the Forest to cross-country travel. Comments also ranged from supporting the construction of more OHV trails to comments from people who did not want more OHV trails.

There were two concerns with the current OHV policy on cross country vehicular travel. The first concern was the need to clarify the regulations on where and when cross-country travel is allowed. The current direction is "open with restrictions." These restrictions did not allow cross-country travel during hunting seasons. This left the majority of the Forest closed to OHVs. This policy was confusing to the public and difficult for the Forest Service to administer.

The second concern was the inconsistency between the Forest Service's cross-country vehicle regulations and the Wildlife Management Area (WMA) regulations. Most of the Francis Marion is part of the WMA program. The WMA regulations do not allow cross-country travel on lands that are part of the WMA program. However, the Forest Service's policy was that the Forest was open to cross-country travel with restrictions.

My decision is to close the Forest to cross-country OHV travel and allow the use of OHVs on designated trails. I believe this decision establishes a clear policy to the public and eliminates the discrepancy with the WMA regulations. There are 20 miles of trail estimated for construction that should help offset the decision to close the Forest to cross-country vehicle travel.

Many people commented that four-wheel drive vehicles were not permitted on the Forest. I understand this impression based on information in the Proposed Forest Plan. This, however, was not the case, and I have changed the way that information is displayed in the Forest Plan. Four-

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wheel drive vehicles are allowed on open Forest roads and designated trails if street legal. Currently, there are no four-wheel drive designated trails on the Forest. However, there are 20 miles of OHV trails identified in the probable activities section of the Forest Plan. This 20 miles could be built to accommodate four-wheel drive vehicles or ATVs or motorcycles or a combination of those uses.

The actual type and miles of trail that could be built is a project-level decision and depends on several factors including funding, demand, partnership opportunities, etc.

## **Scenery Along Travelways**

There were several comments on the DEIS about the scenic beauty of the Forest. The comments indicate that visual resources are important to life-styles and recreational experiences. The total number of acres managed to provide higher visual quality landscapes is increased. The total number of acres managed for natural (retention) or slightly altered (partial retention) will increase by 50 percent. Management area allocations, such as management areas 29 and 8, with assigned visual objectives emphasize my commitment to forest management in a manner that protects and retains visual character and diversity over time on the Francis Marion National Forest.

## **Roads**

Comments ranged from wanting Forest roads open to wanting Forest roads closed. Since the transportation system is integrally linked to other issues, the response to this issue is primarily by alternative theme. The theme of a certain alternative would have outputs and effects which determine amounts of roads open or closed.

Open roads disturb some species such as wild turkey especially during the nesting season. The greater the number of open roads the greater will be the risk to this species. Open roads also increase difficulty in enforcing wildlife management and other Forest regulations. Also, some hunters as well as other recreationists seek a more primitive experience undisturbed by roads and related impacts.

To address these concerns, I will focus on increasing areas that are undisturbed by roads. I will emphasize increasing blocks of land, 250 acres or greater, that are 1/2 mile from an open road. The Forest Plan estimates that about 71 percent of the Forest roads will be open. Road closure is a site-specific decision that is determined on a project by project basis with additional public input.

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## **Habitat for Game and Non-game Wildlife**

Habitat which is preferred by some game species is also preferred by many non-game species. However, many individuals have linked certain habitat types as indicators of emphasis for game or non-game. For example, early successional habitat, including wildlife openings or regeneration areas, has been associated with game species in the past, while the forest interior has normally been associated with non-game species.

The Proposed Forest Plan emphasized increasing the longleaf pine ecosystem, maintaining and enhancing mast-producing hardwoods and mixed pine/hardwood stands, and maintaining early successional habitats. In the long-term, the desired future condition provided for more late successional habitat while maintaining an adequate level of early successional habitat by use of openings and long-term regeneration harvests.

Many comments expressed concern over game and non-game species, as well as maintaining and planting wildlife openings on the Forest. There was an almost even split in the number of responses wanting an increase in game species, versus non-game species. Several people expressed a concern for neotropical migratory birds, and many people showed an interest in increasing mast-producing trees in the Forest. Several comments, although supportive of wildlife openings, suggested that only native plant species be used in opening plantings. Other comments stated that our Management Indicator Species (MIS) list did not include plant communities.

In the Forest Plan, I have maintained the objective to have from 5,000 to 10,000 acres maintained in early successional habitat: maintained wildlife openings will be a small proportion of this total, less than 1 percent Forest-wide. As the Forest recovers from Hurricane Hugo, the canopies are quickly closing and reducing this habitat. Our emphasis will continue to be to use native species and nonnative species known not to spread in these openings. These wildlife openings, along with other regeneration areas will create habitat suitable to over 60 species of birds, 12 of which are neotropical migrants.

I have revised the MIS list in the FEIS and Forest Plan, and have added a Forest-wide objective concerning under-represented plant communities. (See pages 2-2 and 5-6 in the Forest Plan.) I believe by revision of this list and making the associated changes in our monitoring strategy, we will be better able to meet our mandate to maintain viable populations while preserving and enhancing the diversity of plant and animal communities within the planning area.

## **Protection of Proposed, Endangered, Threatened and Sensitive (PETS) Species—Plants and Animals**

The USDI Fish and Wildlife Service has reviewed the Forest Plan and concurs with the determination that the Forest Plan is not likely to adversely affect Federally-listed or proposed endangered and threatened species.

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The primary PETS issue focused on red-cockaded woodpecker direction and how this direction would be integrated into the Forest Plan.

The plan revision process occurred simultaneously with the preparation of the R8-RCW. This R8-RCW and the associated Record of Decision established regional direction for the management of this endangered bird and its habitat. The Record of Decision was signed June 21, 1995. Seven changes were made to the Draft R8-RCW.

The R8-RCW requires establishing and maintaining a habitat management area (HMA) and population objectives on each National Forest with red-cockaded woodpeckers. Specific direction on how to delineate the HMA is given in the R8-RCW. Management direction for habitat inside the HMA is a decision made in the R8-RCW as are the general requirements for determining the population objective. The final determination of the HMA boundary and population objective is a Forest Plan decision.

The Proposed Forest Plan's HMA included land within 3/4 mile of nesting sites and corridors connecting isolated sites. This HMA contained about 3/4 of the pine and pine/hardwood types on the Forest. The Proposed Forest Plan established a population objective of 250 effective clusters. Because the R8-RCW was in draft, a population objective based on local Forest conditions was not established.

Most of the comments were related to the direction given in the Regional draft. Many stated the guidelines were too restrictive, costly, and unresponsive to local economic and social concerns. Some recommended that the HMA include all the suitable habitat on the forest, while others suggested that habitat be managed exclusively by uneven-aged management techniques. Some questioned if the proposed HMA boundary followed Draft R8-RCW direction.

Based on comments from the public, FS and research biologists, additional analysis, and consultation with the USDI Fish and Wildlife Service (Appendix H, FEIS), I have decided that the HMA boundary, with some adjustments, is consistent with the R8-RCW. The adjustments reflected in the Forest Plan are necessary to provide better connection of habitat and match HMA boundaries to actual vegetative conditions. Although a Forest-wide HMA would be easier to administer, I do not believe it allows the management flexibility in areas distant from nesting sites to be used to achieve other desired goals or conditions. This adjustment to the HMA does not cause any additional environmental effects.

An analysis of the seven changes has shown that relative to the decisions made in the Forest Plan (10–15 year) and the current condition of the Forest (red-cockaded woodpecker density and age-class distribution) little change in probable activities or outputs is anticipated. More detailed documentation of this analysis and other responses to comments provided is located in the FEIS.

The R8-RCW allows forest plans to account for variability in habitat capability in establishing final population objectives. During consultation with the USDI Fish and Wildlife Service in determining the localized population objective, I have established an objective of 450 clusters. I believe this objective not only provides for the viability of the red-cockaded woodpecker, but also provides for a framework to achieve other multiple use goals and objectives.

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The Forest's red-cockaded woodpecker population objective is established at 450 clusters. However, considering the current condition of the Forest, our efforts will be focused for the next few decades on maintaining the existing population and developing future habitat to achieve the population objective.

## **Timber Management Strategy**

Initial concerns on timber management focused on the amount of wood products that may be offered in the next 10 years or allowable sale quantity (ASQ), the long-term sustained yield capacity (LTSYC) and the amount of land on which timber production is allowed (suitability). Included in these concerns were timber production on the Forest in light of the extensive hurricane damage, proposed red-cockaded woodpecker management requirements, and implementing an ecological approach to management.

The Proposed Forest Plan estimated ASQ as 30 million cubic feet, LTSYC at 63 million cubic feet, and recommended approximately 80 percent of the Forest as suitable for timber production. Emphasis of the Proposed Forest Plan concerning timber management was on restoring damaged areas, enhancing growth of young stands, and manipulating species composition.

Following the review of the Proposed Forest Plan and DEIS, three broad areas of concern were expressed; 1) Relationship of Timber Management to Red-cockaded Woodpecker Requirements, 2) Management of the Bottomland and Swamp Hardwoods, and 3) Technical Questions about the FORPLAN Model and Related Effects Discussion in the DEIS. An additional comment focused on having an objective for uneven-aged management for loblolly pine. I discuss each of these concerns and the changes I have made below.

### **Relationship of Timber Management to Red-cockaded Woodpecker Requirements**

The plan revision process paralleled the development of the R8-RCW and revision of the Wildlife Management Handbook. Many comments concerned requirements of habitat management such as rotation ages, HMA delineation, and age-class distribution requirements. These comments are outside the scope of the plan revision decisions. What we have accomplished with this revision is the integration of the red-cockaded woodpecker requirements in the overall framework of the Forest Plan to achieve the goals and objectives that the public desires. The Proposed Forest Plan was based on the draft R8-RCW. The final R8-RCW made seven changes to the draft. These changes were analyzed in the context of the local forest condition to ensure that we had incorporated the maximum flexibility allowed. Due to the current condition of the Forest (extensive 0 to 30 year old pine stands, high number of uniformly distributed red-cockaded woodpecker clusters) the changes had little affect on the probable activities, outputs, and associated effects on timber management as outlined in the FEIS. Therefore, I believe the Forest Plan successfully integrates the red-cockaded

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woodpecker requirements while providing for the best mix of benefits and values. This Forest Plan will emphasize over the next 10 to 15 years the restoration of damaged areas, enhancing the growth of young stands, and managing species composition.

### **Management of the Bottomland and Swamp Hardwoods**

Many people commented that hardwood timber management was not handled adequately. Even though approximately 60,000 acres of the bottomland and swamp types are suitable for timber production, there were no scheduled harvests. They argue that there is now a demand and market for this resource, the technology is available to economically harvest this resource and it can be harvested in an ecologically sound manner, and failure to actively manage these types would not lead to desired future conditions. Others stated that if no harvest is scheduled, these types should be unsuitable land.

Although the Proposed Forest Plan provided for the active management of the hardwood resource (Objective O-2, DFC-Timber page 1-6 and DFC-Vegetation page 1-6), based on comments received and more recent bottomland/swamp hardwood inventory information, we have estimated probable activities and outputs for these types in the Forest Plan. These changes are reflected in the Probable Activities and Output section on page S-4. These estimates were included in the calculation of ASQ, and in Appendix A (Timber Sale Schedule) of the Forest Plan. These estimates are based on an evaluation of the silvicultural needs of the heavily damaged bottomland and swamp hardwoods.

I have considered the concern for operating in wetlands in making these changes but believe that these concerns are better considered at the project level. I believe that there is available technology and there are adequate safeguards in place to ensure that these area's wetland functions will remain unimpaired. (For further discussion on this change, see Distribution and Mix of Tree Species.)

### **Technical Questions about the FORPLAN Model and Effects Discussion in the FEIS**

There were many comments about the FORPLAN model. These comments revolved around the predicted yields, pricing techniques and portrayal of inventory.

The FORPLAN model was used as a simulator of different management scenarios which achieved different alternative objectives. It was also used to provide an estimate of some of the probable activities and outputs. These estimates were then used primarily for effects analysis in the DEIS.

Comments concerning FORPLAN model development (growth and yield estimates, prices and values) prompted the planning team to conduct a sensitivity analysis on pricing and trends and the effects on outputs projected in the model. These additional analyses have been incorporated into the FEIS.

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After consideration of the comments about the FORPLAN model, and additional analysis documented in the FEIS, I believe the analysis is both adequate and appropriate for my decisions on the timber management strategy.

### **Loblolly Pine Uneven-aged Management Objective**

There were several comments on uneven-aged management which questions whether the 5,000 acre objective in loblolly can be achieved or whether it's more appropriate for longleaf pine. I have decided to remove this objective from the Forest Plan. The method of harvest will continue to be a site specific decision and is not appropriately made at the plan level. I have added to the Research Needs section the need to develop a study focusing not only on loblolly pine but longleaf pine as well. The display of associated effects is within the range considered in the FEIS.

## **Corridors**

There were concerns about areas that minimize human disturbance, provide linkages between similar ecological units, minimize landscape fragmentation and provide additional semi-primitive motorized recreational experiences. There were several comments that were in favor of linking the wilderness areas as well as comments opposing such linkages.

The Forest Plan establishes a management area of 20,000 acres which includes most of the swamp ecosystem while connecting the four wilderness areas. This management area serves as habitat linkages but also provides certain recreational experiences. This area will provide an area that exhibits a smaller degree of human disturbance when compared to most of the Forest. Opportunities are provided for dispersed recreational experiences that emphasize solitude and challenges. Construction of new motorized trails is prohibited.

This area will provide late successional wildlife habitat and will benefit species such as the swallowed-tailed kite, northern parula and wood thrush. Within this management area, core linkage areas are unsuitable for timber production and do not allow motorized vehicle use. This area will also emphasize less human disturbance and will exhibit old-growth characteristics.

I will maintain two roadless areas (1,420 acres) within this management area. Roadless area characteristics are complimentary to the management of this entire area. In choosing this alternative, I believe that the multiple uses that are allowed in this area cannot be provided in designated wilderness.



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## **Herbicides**

Managing vegetation to achieve Forest Plan objectives may be accomplished with a variety of tools or methods such as cutting trees, conducting prescribed burns, applying herbicides, etc. The method or technique to be used is based on a site-specific analysis considering the current and desired conditions of a particular site and the management area direction in the Forest Plan.

The Proposed Forest Plan excluded herbicide use in the four wilderness areas (management area 2) and within the area connecting the wilderness areas (management area 29).

Few comments on the use of herbicides were received on the Proposed Forest Plan and DEIS. Most focused on effects that are appropriate to consider at the project level.

I have revised Standard and Guideline MA29-2 to allow herbicides only when required for endangered species habitat modification. Portions of management area 29 are included in the RCW HMA. I believe it is very important that a variety of tools and treatments be available at the project level to deal with the various site specific conditions which may be encountered in providing habitat for endangered species. Although herbicide use will now be available in this management area, the emphasis will remain to minimize its use. The anticipated use is expected to be minimal and any associated effects are within the range considered in the FEIS.

## **Prescribed Burning**

Longleaf pine communities once dominated the southern coastal plain. Due to fire control and changing land uses, these fire dependent communities have declined to less than 5 percent of their original acreage. To restore and maintain these highly diverse communities, prescribed burning is critical. In addition to longleaf restoration, prescribed burning will enhance the endangered red-cockaded woodpeckers' preferred habitat of open, park-like stands, provide habitat for wildlife dependent on grass-shrub habitat which is very limited, and reduce the risk of damaging wildfires.

Most of the comments endorsed using prescribed burning, especially the growing season burn. Many stated that the proposed objective in the Proposed Forest Plan was too low and should be increased to allow for a greater longleaf restoration level. (For further discussion on longleaf restoration, see Distribution and Mix of Tree Species.) Most wildlife user groups and agencies, although concerned about possible effects to certain wildlife habitat, supported the level of prescribed burning and the idea of less frequent fires in hardwood and mixed stands. Concerns were also expressed about our ability to achieve the burning levels considering smoke management requirements, expansion of the urban/rural interface and the current condition of the Forest.

I believe this Forest Plan provides an appropriate level of prescribed burning. The link between our goals of longleaf ecosystem restoration, red-cockaded woodpecker and other fire dependent species, and the use of prescribed burning is inseparable. Most of the burning will be focused in management area 26 where longleaf pine restoration is emphasized and within 3/4 mile of red-cockaded woodpecker nesting sites.

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## **Wetlands**

The designation of areas as jurisdictional wetlands is based on site specific evaluations using the definition of the 1987 Wetland Manual. For plan level decisions, we have used hydric soils classification as a predictor of those lands which may be designated. It is estimated that 143,000 acres can potentially be designated as a wetland. About one-half consists of areas such as swamps and bottomlands with the other half in pine dominated communities. Wetlands serve vital ecological roles as water control and purification, ground water recharge, soil enrichment while also offering opportunities for fisheries, wildlife habitat, timber products, and other recreational experiences.

In the DEIS and Proposed Forest Plan, it was estimated that during the first period 1,950 acres of sites on hydric soils would have some type of timber harvest. These were entirely in the pine dominated communities. No activities were scheduled in the bottomland and swamp hardwood types.

Comments on the Proposed Forest Plan and DEIS focused on the estimate of potential wetlands and the lack of any scheduled activities in the swamp and bottomland hardwood types.

As I stated earlier, the actual designation as a wetland is a site specific decision. I maintain that using hydric soils as a predictor of jurisdictional wetlands is sound.

I have revised the estimate of probable timber harvest activities on hydric soils during the first period to 4,150 acres. This estimate adds the 2,200 acres of bottomland and swamp hardwoods projected to be harvested. The increased estimate of activities and associated effects within potential wetlands is within the range considered in the FEIS. Additional discussion of this change can be found in the Timber Management Strategy and Distribution and Mix of Tree Species Sections.

## **Distribution and Mix of Tree Species**

A key issue that emerged during the Forest Plan revision process focused on biodiversity as it applies to the distribution and mix of tree species on the Forest. Of particular interest were natural communities which have been declining in area, such as the longleaf pine community. The loss of hard mast-producing species such as oaks to Hurricane Hugo damage are also a concern.

### **Longleaf Pine**

Longleaf pine communities once dominated the southern coastal plain. Due to fire control and changing land uses, these fire dependent communities have declined to less than 5 percent of their original acreage. The loss of the longleaf pine is significant, but equally important is the loss of wildlife and fire-adapted grasses, shrubs and wildflowers that thrive in the longleaf pine ecosystem.

Looking at historical records from 1936 (when the Forest was established) to 1989 (prior to Hurricane Hugo), the range of longleaf pine has varied from 75,000 to 37,000 acres. Soil texture and drainage maps, along with current and past forest type distribution maps were used to determine

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the probable range of longleaf on the Forest. Using this information and considering operational and environmental constraints on reforestation and prescribed burning, the maximum long-term acreage for longleaf pine restoration was estimated at approximately 64,000 acres.

The Proposed Forest Plan had a Forest-wide objective to increase the longleaf pine forest type to 44,700 acres in the next 10 years and 53,500 acres in the long term.

Most comments supported the goal of expanding the longleaf communities. Many stated the long-term objective should be at least the 75,000 acre level while some supported maintaining the current level. Others requested that a pre-settlement level should be established as the long-term objective.

I believe the level established in the Proposed Forest Plan provided a reasonable long-term objective for the extent of longleaf pine and will, therefore, remain the same in this Forest Plan. I recognize that the longleaf pine ecosystem likely extended beyond this level into the wetter soils. Operationally, however, to restore and maintain the total acreage of longleaf on the wetter soils is infeasible considering smoke management requirements and risk to public health and safety. However, I have included approximately 5 percent of the wetter sites in the long-term objective to provide a representative level of these communities.

I also believe this level integrates the habitat requirements for red-cockaded woodpecker and provides for the attainment of the forest-wide goals and objectives for other resources.

### **Mast-producing Hardwoods**

Although the hardwood stands retained much of their canopies following Hurricane Hugo, most of the large crowned shallow rooted species such as oaks were uprooted. With the perception that the focus of the revision effort would be on longleaf restoration, growing season prescribed burns, and red-cockaded woodpecker management, many were concerned that those species dependent on hard mast would be greatly harmed.

The Proposed Forest Plan emphasized protecting hardwood inclusions and transition zones when not in conflict with red-cockaded woodpecker management or in management area 26 which featured longleaf restoration. Specifically, management area 27 which is predominantly loamy ridges, flats, and river/creek bottoms is managed to emphasize expanding mixed pine/hardwood stands, maintaining transitions between uplands and lowlands, increasing hardwood wildlife food production, and increasing the quality and quantity of the hardwood timber resource in a manner compatible with red-cockaded woodpecker management requirements.

Comments on the Proposed Forest Plan generally favored this level of emphasis on the restoration of the hard mast-producing species. However, there was a concern that the goals, desired future conditions, or objectives did not adequately provide for management of the hardwood resource.

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In response to these comments and associated comments related to timber management, I have provided estimates of probable activities within the bottomland hardwoods. (See Timber Management Strategy section.) As with the concern on the timber management activities, I have considered the concerns in operating within these sites. With the protection measures provided in the Forest Plan, adherence to state Best Management Practices, monitoring requirements and consideration of issues at the site level, activities will be conducted in an environmentally and a socially acceptable manner.

## **Jobs and Revenue**

The public comments received on the DEIS stated that Forest receipts to Berkeley and Charleston counties need to be as high as possible. These payments are made in lieu of taxes. These payments come from timber sales, recreational fees, and royalties from mineral leasing on Federal lands must be used to fund county roads and schools. Changes in these receipts would have the biggest direct effect on the local communities.

Job opportunities in all alternatives would have little effect on the economic diversity or dependency in the four-county area addressed in Chapter 3 of the FEIS. Currently, National Forest management provides about 6 percent of jobs in the wood and paper manufacturing sector. The wood and paper manufacturing sector is less than 3 percent of all employment sectors in the four-county study area analyzed in the FEIS.

I believe this Forest Plan will produce a balance between commodity outputs and amenity values that will contribute to economic and social stability of communities while maintaining the natural character and recreational settings desired by Forest visitors from all areas. Although there is little short term differences in receipts between the alternatives, I am taking every advantage to provide as many goods and services as we can the first period.

In response to public comments on the DEIS, a hardwood component to the ASQ has been added to the Forest Plan. This Forest Plan produces the highest allowable sale quantity in the first period. This Forest Plan also provides a moderate increase in developed and dispersed recreational facilities. Appropriately designed and managed, these sites will draw additional people to the Forest, resulting in an increase in user fee collections. As a result, county revenues are expected to rise as a result of the Forest Plan's outputs. Life-styles, made up of patterns of work and leisure, customs and traditions, and relationships with family, friends, and others will generally not be adversely affected by the Forest Plan. Overall, the Forest Plan will not cause large changes in the socioeconomic environment of the area.

# Alternatives Considered in Detail

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Six alternatives were considered. Five alternatives, labeled A, B, C, D, and F were analyzed and presented in detail. Alternative E was not analyzed in detail since it was not compatible with the R8-RCW preferred strategy.

The five alternatives represent ways of changing the 1985 Francis Marion Land and Resource Management Plan to address public issues, changes in Forest condition, the results of monitoring and evaluation, and the R8-RCW guidelines. Additionally, laws, and regulations require certain alternatives based on national or regional concerns to satisfy National Forest Management Act regulations.

Public issues were instrumental in alternative development. The issues, which are described in detail in the FEIS Chapter 1, center on the following areas:

- \* Recreational Facilities
- \* Trail System
- \* Scenery Along Travelways
- \* Off-highway Travel
- \* Roads
- \* Habitat for Game and Non-game Wildlife
- \* Protection of Proposed, Endangered, Threatened and Sensitive Plants and Animals
- \* Timber Management Strategy
- \* Corridors Connecting Wilderness Areas
- \* Herbicides
- \* Prescribed Burning
- \* Distribution and Mix of Tree Species
- \* Wetlands
- \* Revenues and Jobs

Each of the fully developed alternatives, and basis for each are detailed in Chapter 2 of the FEIS. Chapter 3 of the FEIS discloses the trade-offs and environmental effects.

Alternative C, the "No Action" alternative required by the National Environmental Policy Act and National Forest Management Act, represents the existing situation as far as possible. Alternatives B, D, and F respond to the 1980 Resource Planning Act program strategy.

The alternatives are briefly described here:

## Alternative C (No Action)

Alternative C continues current management direction as prescribed in the 1985 Land and Resource Management Plan as amended. This alternative continues current direction and provides a balanced program of multiple-use management.

The desired condition is a Forest characterized by a variety of age classes and sizes of trees where loblolly pine dominates the landscape. Timber would be harvested throughout the Forest in the pine types.

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Alternative C emphasizes providing a broad spectrum of recreational opportunities with an emphasis on dispersed recreational activities, producing a moderate yield of wood products using even-aged management, creating an even-flow of returns to local communities, recovery of the red-cockaded woodpecker, non-growing season prescribed burning, and enhancing habitat for game and non-game species. Cross country off-highway vehicle travel is permitted with some restrictions.

## **Alternative A**

Alternative A maintains natural ecosystems with a low priority given to resource product outputs. The desired condition is a Forest landscape dominated by large, old, widely-spaced pine trees with open park-like understory. Much of the Forest exhibits old-growth characteristics. Savannahs and pockets of young longleaf pine trees are distributed throughout the Forest. Hardwood trees are found mostly in swamps, along streams and in other areas with natural barriers to fire. Some timber is harvested, but timber production is not a primary objective. Creating an even flow of dollar returns to local communities is not a priority.

This alternative emphasizes the extensive use of growing season burns to restore and maintain the fire-dependent, native communities of longleaf pine, enhancing habitat for late successional game and non-game species, and red-cockaded woodpecker recovery. Recreational activities focus on low impact, dispersed activities. Off-highway travel is not permitted off designated trails. Many roads are closed.

## **Alternative B**

Alternative B emphasizes a moderate increase in developed and dispersed recreational opportunities and production of revenues for the local economy. This alternative has the highest LTSYC over time and generates the most jobs and greatest income in the long term.

The desired condition is a Forest characterized by a variety of age classes and sizes of trees. Most pine stands are even-aged with some uneven-aged stands scattered throughout the landscape. Loblolly pine dominates the landscape.

Alternative B focuses on generating revenues through increased recreational user fees and developing markets for non-traditional sources of jobs and income.

Alternative B also emphasizes even-aged management, mixed pine/hardwood stands, enhancing habitat for game species, and the use of non-growing season burns to reduce the risk of wildfires and maintain red-cockaded woodpecker habitat. A significant portion of the Forest is managed within the red-cockaded woodpecker habitat management area. Off-road travel is not permitted off designated trails.

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## **Alternative D**

This alternative significantly increases recreational facilities, expands the longleaf ecosystem and establishes corridors of special management linking three wilderness areas. This alternative provides the second highest income and jobs over time. Revenues come primarily from timber receipts.

The desired condition is a Forest characterized by a landscape featuring even-aged and uneven-aged pine stands of various ages and sizes. Loblolly pine is the dominant pine species; however, the acreage of longleaf pine has increased and is abundant on well-drained upland sites. Mixed pine and hardwood stands are often found in transition areas between predominantly pine types and predominantly hardwood types. Mast-producing hardwoods are common in areas protected from fire.

Alternative D manages the red-cockaded woodpecker with a Forest-wide habitat management area. This alternative also emphasizes both even and uneven-aged management, expansion of fire-dependent plant communities using prescribed burning, increasing acres of mixed pine/hardwood stands and mast-producing hardwoods, and enhancing habitat for non-game species. Off-highway vehicles are permitted with some restrictions.

## **Alternative F (Selected Alternative)**

This alternative emphasizes expanding the longleaf pine ecosystem, providing a high level of recreational services, promoting mast-producing hardwoods and mixed pine/hardwood stands and establishing corridors of special management linking four wilderness areas.

The desired condition is a Forest characterized by an upland landscape that is predominantly even-aged pine stands of different sizes, ages and densities of trees. Some uneven-aged stands are found on drier sites. Loblolly is the dominant species; however, the amount of longleaf has increased and longleaf is common on the well-drained upland sites. Mast-producing hardwoods are common in areas protected from fire. Mixed pine and hardwood stands are fairly common in transition areas between stands of trees that are predominantly pine or hardwood types.

This alternative does not allow off-highway vehicles off designated trails, designates a significant portion but not the entire Forest as habitat management area for the red-cockaded woodpecker, converts slightly more acres of loblolly to longleaf pine, constructs more recreational facilities, and enhances habitat for both game and non-game wildlife species.

The following matrix compares each alternative in relation to the issue. All of the activities and outputs are estimates, and implementation depends upon site-specific analysis.

Alternatives Compared by Issue					
Issue	Alternative				
	A	B	C (Current)	D	F (Selected)
<b>Recreation Facilities</b>	Maintain existing facilities. No new construction. Emphasize low impact dispersed recreation.	Maintain existing facilities. Construct additional boat ramps, horse camps and campgrounds. Increase total capacity by 37%.	Maintain existing facilities. No new construction.	Maintain existing facilities. Construct additional boat ramps, canoe ramps, horse camps and campgrounds. Increase total capacity by 53%	Maintain existing facilities. Construct additional boat ramps, canoe access, horse camp and campground. Increase total capacity by 45%.
<b>Trail System</b>	Maintain existing trails. No additional trails will be constructed.	Maintain existing trails. Construct additional horse, canoe, OHV and bicycle trails. Increase total miles by 55%.	Maintain existing trails. No new trails will be constructed.	Maintain existing trails. Construct additional horse, canoe, OHV, hiking and bicycle trails. Increase total miles by 98%	Maintain existing trails. Construct additional horse, canoe, OHV, hiking and bicycle trails. Increase total miles by 76%.
<b>Scenery along roads</b>	Scenery appears natural to slightly altered from 58% of roads and trails.	Scenery appears natural to slightly altered from 19% of roads and trails.	Scenery appears natural to slightly altered from 19% of roads and trails.	Scenery appears natural to slightly altered from 25% of roads and trails.	Scenery appears natural to slightly altered from 36% of roads and trails.
<b>Off-highway Vehicle Access</b>	OHV travel is not permitted off designated trails.	OHV travel is not permitted off designated trails.	Cross-country OHV travel is permitted with some restrictions. OHV travel limited to designated trails during hunting season.	Cross-country OHV travel is permitted with some restrictions.	OHV travel is not permitted off designated trails.
<b>Roads</b>	Approximately 40% of Forest roads are closed.	Approximately 15% of Forest roads are closed.	Approximately 27% of Forest roads are closed.	Approximately 31% of Forest roads are closed.	Approximately 29% of Forest roads are closed.
<b>Habitat for Game and Non-game Wildlife</b>	76% of the Forest is in late successional habitat in the long term. Eliminate wildlife openings. Emphasize game and non-game.	58% of the Forest is in late successional habitat in the long term. Increase number of wildlife openings. Emphasize game.	61% of the Forest is in late successional habitat in the long term. Maintain current wildlife openings. Emphasize game and non-game.	61% of the Forest is in late successional habitat in the long term. Reduce number of wildlife openings. Emphasize non-game.	58% of the Forest is in late successional habitat in the long term. Increase amount of wildlife openings. Emphasize game and non-game.
<b>Protection of Threatened, Endangered and Sensitive Plants and Animals</b>	Entire Forest is in habitat management area for the red-cockaded woodpecker.	Approximately 64% of Forest is in habitat management area for the red-cockaded woodpecker.	Approximately 60% of Forest is in habitat management area for the red-cockaded woodpecker.	Entire Forest is in habitat management area for the red-cockaded woodpecker.	Approximately 64% of Forest is in habitat management area for the red-cockaded woodpecker.
With the exception of variation in the red-cockaded woodpecker habitat management area, the management of PETS is the same in all alternatives. All alternatives are consistent with the Endangered Species Act.					



Alternatives Compared by Issue					
Issue	Alternative				
	A	B	C (Current)	D	F (Selected)
<b>Timber Management Strategy</b>	No suitable land. Timber production incidental.	Approximately 206,000 acres of suitable land. Average annual long-term timber production is about 8.8 million cubic feet. Emphasize even-aged management.	Approximately 203,000 acres of suitable land. Average annual long-term timber production is about 5.8 million cubic feet. Emphasize even-aged management.	Approximately 193,000 acres of suitable land. Average annual long-term timber production is about 6.9 million cubic feet. Mix of even and uneven-aged management.	Approximately 201,000 acres of suitable land. Average annual long-term timber production is approximately 6.3 million cubic feet. Mix of even and uneven-aged management.
<b>Corridors Connecting Wilderness</b>	No special management areas link wilderness.	No special management areas link wilderness.	No special management areas link wilderness.	Special management area links three of four wildernesses.	Special management area links all four wildernesses.
<b>Herbicides</b>	No herbicides allowed.	Herbicides allowed.	Herbicides allowed.	Herbicides allowed except in management area linking wildernesses.	Herbicides allowed except in management area linking wildernesses.
<b>Prescribed Burning</b>	Approximately 40,000 acres are burned annually in the short term and 60,000 acres in the long term. About 60% of burns are during growing season in the long term.	Approximately 30,000 acres are burned annually in the short term and 40,000 acres in the long term. About 20% of burns are during growing season in the long term.	Approximately 30,000 acres are burned annually in the short term and 42,000 acres in the long term. About 60% of burns are during growing season in the long term.	Approximately 30,000 acres are burned annually in the short term and 35,000 acres in the long term. About 30% of burns are during growing season in the long term.	Approximately 30,000 acres are burned annually in the short term and 45,000 long term. About 20% of burns are during growing season in the long term.
<b>Distribution and Mix of Tree Species</b>	Long-term major forest types distributions are Loblolly Pine 35% Longleaf Pine 26% Mixed Types 4% Bottomland Hardwoods 8% Swamp Hardwoods 18% all other 9%	Long-term major forest types distributions are Loblolly Pine 46% Longleaf Pine 15% Mixed Types 4% Bottomland Hardwoods 8% Swamp Hardwoods 18% all other 9%	Long-term major forest types distributions are Loblolly Pine 42% Longleaf Pine 19% Mixed Types 0% Bottomland Hardwoods 12% Swamp Hardwoods 18% all other 9%	Long-term major forest types distributions are Loblolly Pine 40% Longleaf Pine 21% Mixed types 4% Bottomland Hardwoods 8% Swamp Hardwoods 18% all other 9%	Long-term major forest types distributions are Loblolly Pine 38% Longleaf Pine 21% Mixed types 6% Bottomland Hardwoods 8% Swamp Hardwoods 18% all other 9%
<b>Wetlands</b>	No pine acres on land suitable for timber production with hydric soils.	51,875 pine acres on land with hydric soils suitable for timber production	51,875 pine acres on land with hydric soils suitable for timber production.	47,784 pine acres on land with hydric soils suitable for timber production.	45,266 pine acres on land with hydric soils suitable for timber production.
<b>Revenue and Jobs</b>	Long-term estimated average annual income is \$10.8 million. Long-term estimated average employment is 461 jobs.	Long-term estimated average annual income is \$17.7 million. Long-term estimated average employment is 753 jobs.	Long-term estimated average annual income is \$12.3 million. Long-term estimated average employment is 519 jobs.	Long-term estimated average annual income is \$15.0 million. Long-term estimated average employment is 639 jobs.	Long-term estimated average annual income is \$13.9 million. Long-term estimated average employment is 591 jobs.

# Environmentally Preferable Alternative

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The environmentally preferable alternative causes the least change to the biological and physical environment and protects, preserves and enhances historic, cultural and natural resources. All alternatives considered in detail satisfy both legal and environmental standards.

The environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources. I used ground disturbing activities as the main indicator for determining the least damage to the biological and physical environment.

The environmentally preferable alternative is Alternative A. This alternative schedules the least amount of intense developmental activity, and programs the least amount of ground disturbing activity during the next 10 to 15 years. Additional information on the environmentally preferable alternative and other alternatives considered is in the FEIS, Chapters II and III.

I did not select the environmentally preferable alternative because I do not believe it provides the balance between economic benefits and environmental concerns provided by the selected alternative. Alternative A would not adequately respond to my concern for the needs of local economies, and other issues identified by the public, Federal, state and local agencies including future timber management strategies, recreation and wildlife emphasis and protection of threatened and endangered species.

In my judgement, Alternative F provides appropriate safeguards at a minimum direct economic cost to assure this alternative can be carried out in an environmentally safe manner. There are no unacceptable environmental effects to physical and biological resources cited in the FEIS, Chapter III.

# Alternatives with a Higher Present Net Value

Present net value (PNV) is the primary measure of economic efficiency for the alternatives. PNV is the difference between the sum of the total discounted benefits of a course of action over some period, and the total discounted costs of carrying out that course of action over the same time period. Benefits and costs used to calculate PNV are those which have a market price or can be assigned a market price equivalent; therefore, PNV does not measure all factors that differ among alternatives.

The PNV of the alternatives was estimated using the discounted costs and revenues over a 90-year planning period. Benefits included estimated timber receipts, wildlife and fish user day values and recreational visitor day values. Estimated costs include the estimated budget to fully implement the alternatives. The assigned value benchmark used the RPA values for recreational use and timber receipt values. The market value benchmark used estimated receipts for recreational use and estimated timber values. Currently, the Forest Service does not charge for hunting and fishing use. Public use of wildlife management areas provides both direct and indirect benefits to both state and local governments.

The table ranks the alternatives by PNV for Periods 1 and 9. This information provides an estimate of the net economic value of priced resource outputs to be foregone if a lower ranked alternative is selected over the preceding one.

Due to the cost of management, the high capital investment in recreational construction and the low level of timber receipts in the first few periods, the PNV is negative throughout the planning horizon in all alternatives. (See FEIS, Appendix B, Table B-15 for additional information.) In most alternatives, receipts

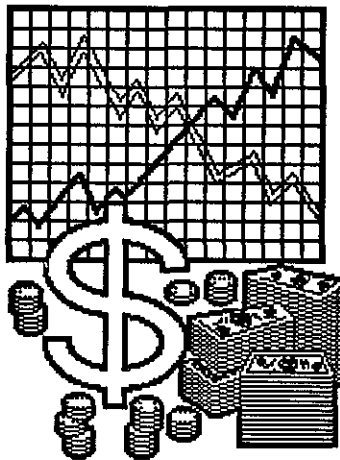
Period 1		Period 9	
Alternative	PNV (M\$)	Alternative	PNV (M\$)
A	-17,760	B	-21,260
C	-23,943	A	-34,172
B	-26,990	C	-34,253
F	-28,591	D	-37,484
D	-29,115	F	-38,091

begin to exceed costs in the fourth period as more sawtimber volume becomes available. However, this positive income is not enough to recover the early negative income when discounted.

In the first 10-year period, all alternatives have a similar level of timber and wildlife benefits and costs. Wildlife costs are higher than benefits in all alternatives due to the cost of managing for endangered species such as the red-cockaded woodpecker and the non-priced benefits from this management. Timber benefits are slightly higher than costs in all alternatives. The heavy damage to the growing stock caused by Hurricane Hugo greatly reduced the volume of timber available for harvest and the potential receipts. The recreational costs are significantly higher in alternatives B, D, and F due to the additional construction of new recreational facilities. These alternatives do not increase at the same magnitude. Alternative D has the highest amount of construction. Alternatives B and F are similar with F being slightly higher.

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I selected Alternative F because it provides better biological stability and provides greater overall benefits than any other alternative. Although Alternative F does not have the highest PNV in any period, this alternative recognizes the importance of wildlife habitat and timber species mix, has a high emphasis on expanding the longleaf pine ecosystem, provides a high level of recreational services, and produces hardwoods and mixed pine/hardwood stands. Spatially, Alternative F better addresses public concerns about recreation, wildlife and timber management strategies. These added resource provisions increase the cost of resource management, lowering the PNV with respect to the other alternatives.



# Summary of Reasons for Selecting Alternative F

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Based on the preceding discussion it is clear that Alternative F does not have the least impact on the environment nor does it generate as many market valued commodities as other alternatives considered. However, I believe Alternative F, within the physical and biological capability of the land, achieves a balance between the economic and environmental issues and concerns voiced by the public. Most importantly, I am confident that the management direction derived from this alternative can be accomplished without reducing that capability.

# Compatibility with Goals of Other Public Agencies

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The Forest Plan has been developed with public participation and involvement, coordination, and comments from Federal, state and local agencies including the USDI Fish and Wildlife Service, the Environmental Protection Agency, South Carolina Department of Natural Resources, South Carolina Parks, Recreation and Tourism, South Carolina Forestry Commission, and representatives of local county and city governments.

Numerous efforts were made to ensure that the selected alternative considered the goals of other public agencies as they relate to national forest management. Comments from letters were reviewed and analyzed extensively; meetings and field trips were conducted with officials from other agencies and actions were taken to address their concerns. I believe the selected alternative is compatible with and complementary to the goals of other agencies.

# Implementation

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The Forest Plan will be implemented through a series of project-level decisions based on site-specific environmental analysis and public involvement. This Forest Plan seeks to guide determination of management activities and projects by establishing a clear desired future condition for the Forest and for each management area rather than by establishing schedules for actions. This approach should leave more flexibility for managers to adapt program and project selection as budgets, resource capabilities, and management priorities change. The Forest Plan does not contain a commitment to the selection of any specific project nor does it make decisions for any specific projects.

Those projects recognized in the implementation guides and strategies in Appendix A and in the list of probable management activities listed on pages S-3 and S-4 are projections of probable outcomes which were used to estimate the environmental effects of each alternative. This Forest Plan purposefully avoids determining activity schedules and addresses the estimated budget as an appendix rather than within the Forest Plan itself in an effort to decrease the need for future amendments solely for scheduling and budget changes.

Site-specific projects chosen to implement this Forest Plan will lead towards accomplishing the goals, objectives, and desired future conditions described in Chapters 1, 2, and 4 and will adhere to the standards and guidelines established in Chapters 3 and 4.

As budgets become more limited, project priorities will be determined by criteria such as progress toward the desired future condition, maximization of resource capabilities, and project coordination with partners and cooperators. We currently work with various partners and cooperators to develop and implement resource management projects. We will continue to develop these relationships and to foster other partnerships to improve on the ground management and improve public ownership in National Forest management.

The Forest Plan is a dynamic instrument which can be changed with appropriate public involvement and environmental analysis. Through the life of the Forest Plan, amendments may be needed to incorporate new information, new policy and direction, or changing values and resource conditions. Amendments will keep the Forest Plan current, relevant, and responsive to agency and public concerns. Amendments are needed whenever any of the Forest Plan decisions should be changed due to any of the above conditions. The Forest Plan can also be amended for specific projects if during project design it is determined that the best method of meeting goals and objectives conflicts with existing standards and guidelines.

Amendments may be significant or non-significant. The Forest Supervisor may implement non-significant amendments to the Forest Plan after appropriate public involvement and environmental analysis. Significant amendments are approved by the Regional Forester.

The Forest Plan will be implemented 30 days after the Notice of Availability of the Forest Plan, FEIS, and Record of Decision appear in the Federal Register. All new permits, contracts, and other instruments for the use and occupancy of national forest system lands and resource uses must also conform with the Forest Plan. Permits, contracts and other instruments which were in existence prior to implementation will be revised (if needed) subject to valid existing rights.

# Mitigation

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Mitigation measures are an integral part of the Forest-wide standards and guidelines listed in Chapter 3, and of the management area guidelines listed in Chapter 4. These mitigation measures were developed through an interdisciplinary effort and contain measures necessary to avoid, minimize, rectify, reduce, eliminate, or compensate for possible adverse environmental effects. Most of the standards and guidelines listed in Chapter 3 of the Forest Plan are incorporated from other documents. These documents include Region 8's *Final Environmental Impact Statement—Vegetation Management in the Coastal Plain/Piedmont*, and *Final Environmental Impact Statement for Standards and Guidelines for the Southern Regional Guide*, and *Final Environmental Impact Statement for the Suppression of Southern Pine Beetles*.

Projects implemented under the authority of this Forest Plan will be conducted in compliance with all laws, regulations, and policies governing activities on National Forest land. All management activities will comply with state of South Carolina Best Management Practices. These Best Management Practices are designed primarily to protect water quality as required by Section 208 of the Clean Water Act.

Additional mitigation measures may be developed and implemented at the project level consistent with the measures identified in Chapter III of the FEIS and in Chapters 3 and 4 of the Forest Plan.

Use of mitigation measures will be monitored as an integral part of the Forest Plan monitoring program. Results of these mitigation measures will be evaluated and the mitigation measures, or standards and guidelines, may be changed if monitoring results indicate a need.



# Monitoring

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The monitoring and evaluation program is the quality control system for the Forest Plan. Monitoring and evaluation receive major emphasis in this revision and will provide us with information on the progress we achieve in obtaining management goals and objectives. This information will be evaluated and used to update inventory data, to improve current and future mitigation measures, and to assess the need for amending or revising the Forest Plan. Thorough evaluation of monitoring results is directly linked to the decisionmaker's ability to respond to changing conditions, emerging trends, public concerns, and new information and technology.

Chapter 5 of the Forest Plan outlines the specific strategies for implementation monitoring, and most importantly, establishes the critical monitoring questions and items which must be answered for effectiveness and validation monitoring. These monitoring questions are linked directly to Forest Plan goals, desired future conditions, objectives, and specific regulatory requirements which are not covered during regular project implementation monitoring.

Monitoring task sheets for each monitoring question listed in Chapter 5 are located in Appendix B of the Forest Plan. The task sheets include specific information such as method of information collection and evaluation, who is responsible for the monitoring, timing and frequency of information collection and evaluation, and estimates of information and evaluation precision and reliability. These task sheets can be changed if new or better techniques of collection or evaluation are found and will not require a Forest Plan amendment.

Because not every goal, objective, or standard and guideline can be monitored, the critical monitoring questions help establish monitoring priorities.

Monitoring activities, findings, and results will be reported to the public in official Monitoring and Evaluation Reports at least annually. The reports will include time frames and action plans for implementing recommendations for change based upon monitoring findings.



# Appeal Rights

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This decision may be appealed in accordance with the provisions of 36 CFR 217 by filing a written notice of appeal within 90 days of the date of publication of the legal notice. The appeal must be filed with the Reviewing Officer:

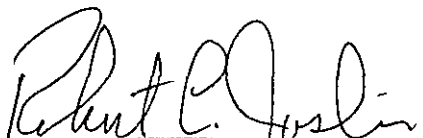
USDA Forest Service  
Attn: NFS Appeals Staff/3NW  
P.O. Box 96090  
201 14th Street, SW  
Washington, DC 20090-6090

The notice of appeal must include sufficient narrative evidence and argument to show why this decision should be changed or reversed (36 CFR 217.9). Requests to stay the approval of this Land and Resource Management Plan shall not be granted (36 CFR 217.10(b)).

The Forest Plan will be implemented 30 days after the Notice of Availability of the Forest Plan, FEIS, and Record of Decision appear in the Federal Register. No decisions on site specific projects are made in this document. Those projects identified in the Forest Plan or FEIS as probable activities are only included to indicate approximate scheduling, practices, and to estimate effects. Final decisions on site-specific projects will be made after site-specific analysis and documentation in compliance with the National Environmental Policy Act.

I encourage anyone concerned about the Forest Plan or the FEIS or who would like more information to contact:

David W. Wilson  
Forest Supervisor  
4931 Broad River Road  
Columbia, SC 29210-4021  
(803) 561-4000

  
\_\_\_\_\_  
ROBERT C. JOSLIN  
Regional Forester  
Southern Region, USDA Forest Service

  
\_\_\_\_\_  
Date

# NOTES

The United States Department of Agriculture (USDA) Forest Service prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means of communication of program information (braille, large print, audiotape, etc.) should contact the USDA Office of Communications at (202) 720-2791.

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