

**AMERICAN FOREST & PAPER ASSOCIATION**

© Forestry and Wood Products

February 19, 2002

Mr. John Greis  
Dr. David Wear  
SFRA Program Managers  
USDA Forest Service  
Southern Region  
1720 Peachtree Road, NW  
Atlanta, GA 30367

RE: Comments on the Draft Southern Forest Resource Assessment

Dear John and Dave:

The American Forest & Paper Association (AF&PA) appreciates this opportunity to comment on the Southern Forest Resource Assessment (SFRA) summary and chapters. AF&PA represents companies engaged in the manufacture of wood and paper products and the management of forestland throughout the United States. The forest products industry, private forest landowners and American consumers all share a keen interest in the sustainability of southern forests. As you know, AF&PA member companies and the southern landowner/industry associations have been highly supportive of the assessment process. The agency should be commended for its leadership in producing this landmark regional environmental study.

As Team Leaders for the project, you also deserve to be recognized for having successfully and impartially organized and managed the diverse group of researchers and issues addressed by the Assessment. All interested parties had the opportunity to identify and comment on important issues. Stakeholders were kept well informed of the Assessment's status through the SFRA website and progress meetings. Overall, the SFRA is a milestone in the long and storied history of research on southern forests and significantly contributes to our understanding of forest conditions and trends in the region.

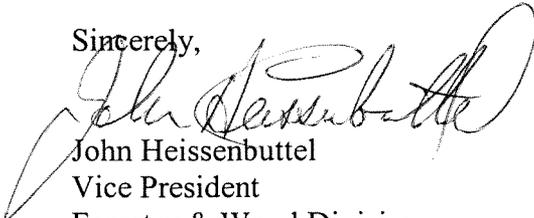
Appended to this letter are two attachments. The first attachment summarizes a few of the most significant themes from the SFRA Executive Summary and provides comments on each of the 25 separate reports. These reviews are a collaborative effort of a task group comprised of industry and association representatives. The individual chapter comments note where further information or clarification might be helpful. As you will see, most of the comments are relatively minor. However, we believe that the TERRA-4, TERRA-5, SOCIO-6, and AQUA-2 chapters overlooked important information and/or contain sufficient inaccuracies to warrant more thorough technical editing and review.

The second attachment is a partial list of activities in which the industry is currently engaged that address various findings of the Assessment as we move forward. Much of what AF&PA and others are doing to promote sustainable forestry goes unheralded in the popular press and is not given much attention in the SFRA, but is nevertheless making a substantive impact on the long-term health and productivity of the South's forests. We believe it would be appropriate for the Forest Service to include this information in the final study to further the public's understanding of the positive relationships between industry, landowners, environmental organizations, and government agencies that are making significant contributions to expanding the practice of sustainable forest management.

Finally, a note on research going forward. The SFRA chapters each highlight further research needs. While many of the suggested areas for more intensive research are admirable, we urge the agency to establish priorities as part of its regular research program rather than undertake any new initiatives directly based on this Assessment. The SFRA is a comprehensive look at southern forests on a regional scale and deals adequately with most of the sustainability issues of interest and concern. The Forest Service is contemplating "small area assessments" as a subsequent task. However, narrowing the area(s) of focus for further study is unlikely to produce significant new insights beyond the findings of the SFRA. In fact, such a narrow focus would likely produce misleading findings. In fact, the agency has already encountered substantial controversy in attempting to identify geographical areas for small area assessments, suggesting that any such studies might be compromised by a high risk of political influence and bias. We strongly believe that the agency should instead focus its attention and limited resources on improving and expanding data collection efforts such as the annualized FIA system, and should emphasize other research priorities in those areas likely to have the most direct impact on forest sustainability, e.g. adaptive management strategies, productivity improvements and BMP effectiveness.

Again, we appreciate this opportunity to offer comments on the SFRA and look forward to working with you in any way that can be helpful as completion of this project nears.

Sincerely,



John Heissenbuttel  
Vice President  
Forestry & Wood Division

Enclosures

*(Attachment 1)*  
**American Forest & Paper Association**  
**Comments on SFRA Question/Issue Chapters**  
**February, 2002**

**Executive Summary**  
**Major Themes:**

Some of the most encompassing and important conclusions of the SFRA are that the South's forests are vast and diverse, and make huge environmental contributions by supporting an abundance of wildlife and plant species and by protecting water quality. The study supports the fundamental premise that southern forests are sustainable and can support multiple benefits including an expanding forest industry. The study also clearly demonstrates that urban sprawl is the most substantial threat to the South's forests, and that strong timber markets provide a powerful incentive for landowners to keep land forested.

The history of southern forests is a chronicle of resiliency in the face of an expanding population and demand for wood and paper products. While the amount of land used for urban development increased by 45% between 1982 and 1997, the area in forest cover remained stable (even increasingly slightly). And while demand on southern forests has grown to represent over 60% of the nation's total timber production, forest inventories have nevertheless continued to increase. The fundamental trends of stable forest area and abundant inventories are projected to continue into the future.

The SFRA supports the view that active forest management is the key to maintaining the sustainability of southern forests into the future. The study emphasizes that today's forest management practices will determine future forest conditions. Productivity gains and economic returns from sustainably managed forests will enable the region to meet the anticipated increase in demand while also enabling the conservation of wildlife habitat and bio-diversity.

Certain areas in the South are facing heavy pressure from increased population and development, and changes are occurring in certain ecosystem types. The SFRA noted specifically that significant changes have occurred in seven classes of forest communities including old-growth, spruce-fire, wetlands, bottomland forest, barrens, longleaf pine and Atlantic white cedar. Most of these changes are the result of broad socio-economic trends in the region and not specific to forest management practices. In fact, forest management creates opportunities for ecological restoration and conservation.

Public lands play a smaller role than private lands in the South, but are nonetheless economically important for both timber and recreation opportunities. Forest management and recreation are compatible and rural communities in the South have benefited from both a vibrant local industry and recreation. The SFRA shows that forest industry employment is more stable and jobs are higher-paying than those available in the recreation sector. The lack of management on public forests often increases the risk of catastrophic fires and insects and disease outbreaks that can spill over onto private lands.

CHAPTER	COMMENTS
<b>TERRA 1</b>	<ul style="list-style-type: none"> <li>• The report should note that intensively-managed stands could and often do contribute significantly to biological diversity.</li> <li>• A bias results from using a major data set that includes all species for Texas and Oklahoma, not just species found in the forested eastern parts of both states.</li> <li>• The cited RPA Wildlife Report data are derived from a partial survey and most groups identified as in decline are not associated with forests (grassland, urban, ground). The statement "Biologists from state wildlife agencies expect bear populations to decline somewhat over the next few decades" is based on information from 4 states that are not identified. Most black bear authorities predict bear populations to be stable or increasing for the Southeast as a whole into the foreseeable future.</li> <li>• The historical conditions section should recognize impact of catastrophic disturbance agents (e.g., hurricanes, tornadoes, ice storms) in addition to low-intensity fire. Note also that many southern forests have been in and out of agriculture one or more times.</li> <li>• While "many vertebrate species occur in patches of old-growth forest," no evidence is provided that vertebrate species actually require old-growth forest (versus mature forests).</li> <li>• More evidence is needed to support the suggestion that more than half of bogs on private lands is threatened, if that is the case. Some recommendations for conserving wetlands, bogs, and pocosins are overly stringent and inconsistent with regulatory guidance and the Clean Water Act exemption for normal silvicultural practices (e.g., protection from foot traffic).</li> <li>• Where the Report asserts that "extensive" areas of longleaf pine was converted to plantations of loblolly or slash pine, it should also note that large areas were converted to other land uses (e.g., pastureland, agriculture, urban).</li> <li>• Although hard mast is an important component of diets of white-tailed deer in some locations, deer populations in many locations are reliant on forage. The report should discuss the importance of soft mast to some species (e.g., black bear), and the importance of early-successional habitats in providing forage and soft mast.</li> <li>• Discussion about corridors is incomplete. There is confusion at times over the spatial scale at which corridors are being discussed (e.g., regional versus local). The Report should acknowledge alternative approaches to providing habitat connectivity (e.g., a shifting mosaic approach in which habitats blink in and out across the landscape).</li> <li>• Most of the identified research needs focus on federal lands and their management philosophies (e.g., ecosystem restoration), rather than focusing on better information about how to integrate wildlife and economic objectives.</li> </ul>
<b>TERRA 2</b>	<ul style="list-style-type: none"> <li>• None noted</li> </ul>
<b>TERRA 3</b>	<ul style="list-style-type: none"> <li>• A "key finding" states that indiscriminate use of exotic species for wildlife management purposes has led to serious problems. However, only very sketchy examples of problems created by use of exotics for wildlife management are provided to support the finding.</li> <li>• Table 2 is supposed to list exotic species associated with southern forests, but the table contains several species that occur in west Texas and south Florida that are not associated with southern forests.</li> </ul>
<b>TERRA 4</b>	<ul style="list-style-type: none"> <li>• <b>This chapter would benefit from more thorough technical editing and review.</b></li> <li>• Some of the statements in this chapter regarding herbicide impacts should be qualified and directly related to available research. A seemingly negative bias toward plantations comes across without documented evidence. Only 14% of the South's forests are currently plantations. Statement that "Pine plantations are generally poor wildlife habitat" (page 20) is much too general. While "Dense, unmanaged pine plantations are poor habitat for many wildlife species," most managed forest landscapes contain plantations that vary in structure. Some plantations may develop structural features that provide habitat for only a limited number</li> </ul>

CHAPTER	COMMENTS
	<p>of wildlife species. However, landscape mosaics containing an array of plantation structures and other forest types have been demonstrated to make important contributions to biological diversity (Wigley et al. 2000).</p> <ul style="list-style-type: none"> <li>• Presumes that most plantations are densely stocked and have closed canopies. This is not necessarily the case. Adaptive management strategies that prescribe moderate tree stocking levels and judicious forest chemical use can maintain good early successional and other associated habitat values.</li> <li>• That "Pine plantations are generally poor wildlife habitat" (page 20, paragraph 1) is not supported and is contradicted elsewhere in the chapter: "Many wildlife species thrive in early successional communities created by clearcutting" (page 24, paragraph 6).</li> <li>• Chapter notes that: "...increasing urbanization and increasing density of major roads create liability risks that may doom widespread prescribed burning for silvicultural purposes." This recognition of the limitation on use of fire in forests (and other land uses) points to the need for a better understanding of the future use of other vegetation management tools (e.g., chemical, mechanical) to meet natural resource objectives.</li> <li>• Comment that buffers (500 feet) and corridors around salamander breeding ponds are required to ensure population stability or dispersal (page 8) is largely conjecture and not supported by good scientific studies. There are very few empirical data to support this assertion, and some recent data to the contrary (Baughman 2000, Russell 2000). Means et al. (1996) referenced on page 9 was not a well-replicated and controlled experiment (only anecdotal information).</li> <li>• "Less than 3 million acres of the original longleaf ecosystem remain," (page 13). Report should note current programs to restore longleaf pine (Farm Bill provisions, Longleaf Alliance, etc.).</li> <li>• The reference to Mitchell et al. (1999) regarding the Parker Tract in NC is not correct. (last paragraph, page 18). Mitchell et al. (1999) should be for the Woodbury Tract-Pee Dee River in SC.</li> <li>• Because of the frequent reference in TERRA-4 to reduced use of fire and increased use of forest herbicides, and a likely continuation of such trends, this chapter should include more discussion of fire-herbicide-wildlife relationships. The recent NCASI-sponsored review of herbicide-wildlife literature by Dave DeCalesta might be helpful.</li> <li>• Discussion of neotropical migratory birds focuses almost exclusively on declining species without considering species that are stable or increasing.</li> <li>• The assertion that "roads of any width and use likely provide some barrier to dispersal" of amphibians (page 9, paragraph 3) is contradicted within the same paragraph by the results of Gibbs (1998) and deMaynadier and Hunter (2000).</li> <li>• The implication that plantations in coastal North Carolina are no longer wetlands (page 18, paragraph 3) is arguable.</li> <li>• Cites continuing downward trends in BBS data for selected early-successional species as evidence that intensively-managed pine plantations do not provide suitable habitat (page 17, paragraph 3). This is an inappropriate use of BBS data (to evaluate response to stand-level management practices), and it ignores other factors (e.g., imported fire ants, changed farming practices) that likely are affecting population trends of some species such as northern bobwhites.</li> <li>• The report should acknowledge that many wildlife species associated with longleaf pine ecosystems also use ecosystems dominated by other pine species such as loblolly or shortleaf (e.g., page 13, paragraph 6). Fails to note that approximately half of the red-cockaded woodpecker populations reside in loblolly pine forests. Papers such as Hedman et al. (2000) have indicated the many similarities can exist among forested ecosystems dominated by different pine species.</li> <li>• Expresses concern about potential impacts of pine plantations in pocosins (page 12, paragraphs 3-5). Concludes that populations for most species potentially affected are stable or increasing, but fails to cite results of Karriker (1993, 1996) on page 12—even though the chapter does mention Karriker (1993) later. Karriker (1993) found that bird communities in plantations could be similar to those in pocosins where structure is similar.</li> </ul>

CHAPTER	COMMENTS
	<ul style="list-style-type: none"> <li>• Several citations should be updated. The authors could replace Lancia and Gerwin (in progress a and b) with Mitchell et al. (2001) which describes both studies. Barber and others (in review a and b) could be replaced with Barber et al. (2001).</li> <li>• Observes that water tables may rise following clearcutting (page 24, paragraph 6), but should also note this actually benefits amphibians.</li> <li>• Notes that herbicides may decrease plant diversity (page 25, paragraph 6), but fails to note that these decreases are temporary and that plant communities often recover from herbicide applications within several growing seasons.</li> <li>• Makes several unsubstantiated claims regarded streamside management zones. Asserts that SMZs are used by wildlife as travel corridors (page 29, paragraph 2), although data documenting travel in SMZs are very limited.</li> <li>• Acknowledges that effects of soil compaction and rutting vary with soils (page 31, paragraph 5), but fails to note that these effects can sometimes be ameliorated with selected management practices (e.g., bedding) (Aust et al. 1998).</li> <li>• Another source that discusses the effect on Native American populations soon after European arrival is Kay (1998). The section on silvicultural systems (Section 5.5) should add a discussion of two-aged silviculture since large areas of national forests will be managed under this system.</li> </ul>
<p><b>TERRA 5</b></p>	<ul style="list-style-type: none"> <li>• <b>This chapter would benefit from more thorough technical editing and review.</b></li> <li>• The chapter lists numerous forest management practices that negatively impact wildlife i.e. pesticides, plantations, heavy site prep, clearcutting, etc, although little or no data are presented to substantiate claims or to explain the impact. In the same token, there should be specific mention of the value of managed forests for wildlife and biodiversity.</li> <li>• As in Terra-1, all species for Texas and Oklahoma are included in the analysis, not just those species found in the forested eastern parts of both states. At least 9 mammals, 13 birds, 16 amphibians, and 13 reptiles listed as G1, G2, or G3 in TERRA-1 and referenced in TERRA-5 are outside the identified scope of the assessment (southern forests), which makes up approximately 39% of the identified "terrestrial vertebrate species of conservation concern". This carries over to the federally listed species – for example, 4 of the 7 federally listed salamander species are found outside the scope of the study in central or west Texas. Additionally, the document specifically listed the Edwards Plateau as an area of concern due to the high number of endemic amphibians. This region is not a forested region; rather this area was historically short grass prairie.</li> <li>• The statement that "...the majority of its range (Red Hills Salamander) is privately owned, making protection and management difficult" fails to take into account management (HCPs) and cooperative agreements that forest owners have undertaken to protect and manage for this species. Yet the report cites an outdated 1983 reference that states: "If the population and habitat continue to decline, acquisition of a sanctuary may be required to ensure its survival."</li> <li>• Too much emphasis is placed on undisturbed or large areas of limited human activity as essential for black bear: "Current distribution of black bear [is] restricted to relatively undisturbed forests...Both Louisiana and Florida black bear subspecies [are]restricted to islands of public land and inaccessible areas of bottomland forest...Forested areas of 150 to 300 square miles with limited human intrusion are needed to sustain viable populations." While it is true that black bear need places of relative seclusion, the above statements as written are not correct. In fact, bear populations can exist in landscapes where other land uses occur (e.g., agriculture), and they often move among forest fragments (Marchinton 1995, Anderson 1997) and make extensive use of agricultural food crops when they are available (Martorello 1998). Thus, "fragmentation" per se is not always detrimental to bear populations.</li> <li>• Section 4.3.4 Habitat Management for Reptiles states that "the importance of leaving terrestrial buffers zones around wetland habitats is well documented." However, research conducted by Russell et al "... did not observe any treatment-related changes in the overall richness, abundance, or community similarity of amphibian and reptile communities at the wetlands" (manuscript in review).</li> </ul>

CHAPTER	COMMENTS
	<ul style="list-style-type: none"> <li>• Water quality issues were listed as potential problems for many species; but no mention was made of the rise in Best Management Practices compliance across the south. The increasing use of Best Management Practices in virtually every state in the south is having a tremendous impact on improving water quality and enhancing habitat conditions and biodiversity.</li> <li>• A discussion of the forest fragmentation impact of smaller ownerships over time should be included.</li> <li>• Discusses white-tailed deer and beaver as though they were species of concern, even though both species are overabundant in many areas (page 40, paragraphs 3-5; page 48, paragraphs 3-6). The chapter also fails to recognize the tremendous economic damage caused by beavers and deer and the ecological impacts that white-tailed deer are having on other wildlife species of concern (e.g., shrub-nesting birds).</li> <li>• Notes correctly that "Public lands have a key role in species conservation"; however, further discussion about the contributions of private lands is warranted.</li> </ul>
<b>SOCIO 1</b>	<ul style="list-style-type: none"> <li>• A discussion about forest fragmentation impact of smaller ownerships over time should be included. This is particularly relevant in areas where urban sprawl is creating smaller ownerships and tracts that complicate timber and wildlife management.</li> </ul>
<b>SOCIO 2</b>	<ul style="list-style-type: none"> <li>• The report should provide a more thorough discussion and explanation of the survey on which the findings are based. Many of the questions were narrowly focused. For example, various uses of forestland were cast as mutually exclusive and complimentary relationships were ignored. The results can be legitimately criticized as severely biased.</li> <li>• "Results suggest that where people live in the South (in an urban or rural area) is not related to their values of forests or attitudes toward the environment." However, these same people are buying large volumes of forest products.</li> <li>• The report should note that the telephone survey did not include any questions regarding the respondents' use of forest products – i.e., whether they use and enjoy wood and paper products?</li> <li>• The respondents were not asked whether they would be willing to forego a chance to remodel their home in order to protect wetlands or do with fewer paper towels, etc., etc.</li> <li>• Survey respondents were not asked if they realized that restricting forest production would lead to greater use of non-renewable substitutes.</li> </ul>
<b>SOCIO 3</b>	<ul style="list-style-type: none"> <li>• The report (p. 42) incorrectly suggests that a "take" under the Endangered Species Act can be caused simply by habitat modification. The Fish and Wildlife Service defines "take" to require an "actual death or injury" in all instances. Moreover, the habitat modification itself must be "significant."</li> <li>• Misstates the authority of states and local governments with respect to control of pesticide use. There is no "delegation" by EPA; states may engage in supplemental regulation and enforcement.</li> <li>• Conservation easements are a rapidly growing tool for protecting forestlands, but their actual efficacy is not well documented. Some further discussion about the controversy created by acquisition programs would be helpful.</li> </ul>
<b>SOCIO 4</b>	<ul style="list-style-type: none"> <li>• This chapter relies heavily on findings from SOCIO 6, reviewed separately.</li> <li>• The report states that 12% of southern forest is permanently set aside by landowners who intend to never harvest timber on their land. This figure significantly understates the amount of land that is set aside as many landowners who do harvest timber also set aside portions of tracts that will never be harvested.</li> <li>• The study places excessive emphasis on government subsidies role in the productive state of the southern forest. At best, according to the numbers in the report, only 1.5% of landowners</li> </ul>

CHAPTER	COMMENTS
	<p>are even participating in any type of direct government subsidies. This means that 98.5% of the landowners are responding to marketing signals and other management objectives.</p> <ul style="list-style-type: none"> <li>• The 14MM acres of southern forest land not counted as "timberland" are an important component of the biodiversity of the total forest, and as such, deserve consideration.</li> </ul>
<b>SOCIO 5</b>	<ul style="list-style-type: none"> <li>• The authors use simple percentages to identify counties with a high concentration of wood products jobs; by using components of a county's economic base instead, many more forest products dependent counties would result. Simple percentages grossly understate the economic importance of manufacturing industries in general and the forest products industry in particular. For example, manufacturing accounts for only 24 percent of "total" manufacturing income in the Southern Appalachian region but 68 percent of the economic base ("basic") income.</li> <li>• The authors reference a study by Niemi and Whitelaw (N/W). This study is deeply flawed. Publication of an article (Schallau et al) criticizing the N/W methodologies is scheduled for publication in the March, 2002 issue of the Forest Products Journal.</li> <li>• Complimentary relationships between forest products and outdoor recreation should be mentioned. For example, logging roads provide access for outdoor recreation enthusiasts. Likewise, timber harvesting often enhances wildlife habitat.</li> </ul>
<b>SOCIO 6</b>	<ul style="list-style-type: none"> <li>• <b>This chapter would benefit from more thorough technical editing and review.</b></li> <li>• Analysis is based primarily on the southwide responses from a National Survey of Recreation and the Environment (NSRE). These data appear to be exaggerated; at the very least, a discussion of associated errors or data weaknesses should be included.</li> <li>• Moreover, numerous conclusions are based on little or no data. For example, despite the lack of quantitative data the authors assert that "obviously" nontimber forest products is an important use of the South's forests. Likewise, despite the fact that the National Outdoor Recreation Supply Information System does not distinguish between forest and nonforest settings, the authors assume that most of the outdoor recreation opportunities are in forest settings.</li> <li>• Much of the presented data lacks credibility and should therefore be further explained and supported or excluded. For example: "Twenty-six percent of residents of the South participate in gathering a wide variety of nontimber forest products....The number of people viewing and photographing fish almost doubled between 1995 and 2000."</li> <li>• The report should include a discussion of complimentary relationships between forest products and other commodity uses of forestland and outdoor recreation.</li> <li>• Despite their importance in the region, the report has little mention of hunting and fishing, and no discussion of programs or revenues from licenses and leases -- major activities in the South.</li> </ul>
<b>SOCIO 7</b>	<ul style="list-style-type: none"> <li>• The report references Niemi and Whitelaw (1999) and Power (1996) who cast doubt on whether forest product exports can enhance the quality of life for "other participants" in the local economy. Unfortunately, these observers base their beliefs on untested hypotheses. Their claim that economic base models can not incorporate amenity and recreation/tourism values is falsely premised. See article by Schallau et al scheduled for publication in the March 2002 issue of the Forest Products Journal.</li> <li>• Studies can be cited that show that high amenity areas suffer when the number of retirees and others seeking amenities increase (see Gallagher, Thomas. 1997. Communities Responding to Rapid Change. Western Rural Development Center, Oregon State University, Corvallis, OR. WRDC 43).</li> <li>• The report should also cite studies that show how tourism can exploit local culture and environment (Cf. Michael Smith. 1989. Behind the glitter –the impact of tourism on rural women in the Southeast. Lexington: Southeast Women's Employment Coalition, 140 East Third Street, Lexington, KY 40508).</li> <li>• The importance of the forest products industry to local/state tax bases is omitted. Contributions</li> </ul>

CHAPTER	COMMENTS
	<p>by the forest products industry to the local tax base enables numerous services, amenities and infrastructure improvements that should correlate to a "better" quality of life.</p> <ul style="list-style-type: none"> <li>• That private property ownership is also an element of quality of life is not noted.</li> </ul>
<b>TIMBR 1</b>	<ul style="list-style-type: none"> <li>• The chapter is well balanced. However, the point should be made that the reason industry cuts trees is to satisfy consumer demand, and not to satisfy industry's appetite for wood fiber as is often implied by environmentalists.</li> <li>• Should note that increased production and demand in the South encourages forest management – landowners have more options to properly manage their forests when they can market low-grade, small-diameter trees and less valuable species.</li> <li>• Should note that commercial timber harvesting is oftentimes the most cost-effective means to achieve non-commodity values.</li> </ul>
<b>TIMBR 2</b>	<ul style="list-style-type: none"> <li>• Additional discussion on the effect of the CRP program and other afforestation trends would be useful.</li> </ul>
<b>TIMBR 3</b>	<ul style="list-style-type: none"> <li>• Only slight reference is given to the logger training aspects of the SFI; no references are made to SFI forest practice standards and guidelines, or other certification/sustainability programs.</li> <li>• No costs are given for mechanical site preparation (page 4), although cost estimates seem to be given for all other site preparation and establishment technologies.</li> <li>• Misses the link between inventory technology and operations technology. Enhanced inventory technologies (remote sensing, GIS, FIA data processing, etc.) will allow for more efficient harvesting and deployment of new operations technology.</li> </ul>
<b>HLTH 1</b>	<ul style="list-style-type: none"> <li>• Probable overstatement on p. 10 that "shifts in acres of timberland among NIPF landowners can have an immediate effect on the extent, management, condition, and availability of southern forest resources." They have an effect, but the past relatively slow changes in the resource in the face of changing land ownership patterns doesn't indicate immediate effects from this source.</li> <li>• Section 5.5: "Georgia and Florida are typical" examples of the transition to more pine plantations and less natural stands is overstated. They are misleading examples. All the other states have experienced less change.</li> <li>• In Section 5.8, it would be useful to point out that the increase in ratio of removals to growing stock is a logical consequence of shorter rotations and an economic benefit with less growing stock capital required to supply wood to society.</li> <li>• Suggest including "planted oak-pine" and "tract" in the glossary. The definition of a "tract" as used in the survey should be elaborated upon since it is used frequently and forms the basis for a number of conclusions that may or may not be accurate depending on the definition used.</li> <li>• Statistics on growth rates, growing stock volume, and mortality would be more meaningful if presented on a per-acre basis for those observations comparing different ownerships across time. Currently the conclusions are confounded by acreage changes. An example where this occurs is where the statement is made that "growth rates have increased on other public timberland" which then has the caveat in the next sentence that this is due to land acquisition.</li> <li>• Figure 22: "Dip in average annual growth due to change in timberland during the 1970's is clearly visible in this figure." Suggest more elaboration since it is not clearly visible.</li> <li>• Page 20: Statement that forest industry maximizes profit by maximizing volume cut is not strictly true. Maximization of profit is achieved by maximizing value cut (which could be by cutting less volume depending on prices).</li> <li>• 5.8.1 Removals by Ownership: Neither figure 27 nor Table 23 supports the statement that "all ownerships except other public experienced increase in removals between 1982 and 1999" and the subsequent statement. Suggest noting that removals from National Forests declined from 336 to 136 between 1989 and 1999 according to Table 23.</li> </ul>

CHAPTER	COMMENTS
<b>HLTH 2</b>	<ul style="list-style-type: none"> <li>• Should note that lack of management on public lands affects pest management on private lands.</li> <li>• Harvesting trees, either selectively or in small blocks, as a means to reduce the pest risk or to control pest outbreaks and reduce their negative effects is omitted from the "4.5.1 Silviculture" section.</li> <li>• Statement that "Biological control, however, suffers from a problem very similar to genetic control. Often, this process has only provided short-term solutions" is not supported and potentially misleading.</li> </ul>
<b>HLTH 3</b>	<ul style="list-style-type: none"> <li>• Most damaging abiotic factors work together, not separately. Studies of whether any one factor damages forest health will miss the point.</li> <li>• The direct impacts of climate change (and associated effects like CO<sup>2</sup> fertilization) on tree growth will probably be negligible, but subtle climate changes can affect more adaptive organisms and volatile disturbances. So slight climate changes, while difficult to measure, can have dramatic effects on insect or disease organism life cycles, wildfire regimes, local weather patterns, etc.</li> <li>• Urban growth is the major threat to future forest productivity in the South. One likely result of urban sprawl, therefore, is an increase in ozone formation in formerly rural forests.</li> </ul>
<b>AQUA 1</b>	<ul style="list-style-type: none"> <li>• Chapter conclusions should emphasize lack of scientifically collected and monitored water quality data.</li> <li>• The report (p. 24) misstates EPA's authority with respect to TMDLs under section 303(d) of the Clean Water Act. Section 303(d) assigns the responsibility to prepare the TMDL to the state. If a state does not do so, then section 303(d) directs EPA to step in and prepare the TMDL. The Clean Water Act provides no authority at all for EPA to "enforce" a TMDL.</li> <li>• Silviculture pesticide use not discussed though facts show that forestry accounts for less than 1% of total pesticide use. As a comparison, home &amp; lawn use account for approximately 12 percent of total pesticide use.</li> </ul>
<b>AQUA 2</b>	<ul style="list-style-type: none"> <li>• <b>This chapter would benefit from more thorough technical editing and review.</b></li> <li>• The major deficiency of this chapter is the lack of discussion and reference to the 1987 Wetlands Delineation Manual that is the definitive guidance on wetland determinations.</li> <li>• A better explanation of the data and its weaknesses should be provided. For example, Table 1 on page 34 shows the nation losing more "forested wetlands" than "total wetlands", and the south losing more forested wetlands than total wetlands.</li> <li>• The policy section omitted the 1995 agency guidance on mechanical site preparation to establish pine plantations (Federal Register, February 27, 1996 (Volume 61, Number 39) pp. 7242-7245). This is important because it separates forest wetlands into two classes: those in which mechanical site preparation can be conducted to establish pine plantations without a 404 permit and those that would require a permit for such an operation. (page 22)</li> <li>• After the first paragraph, explain that conversion of forested wetlands to scrub-shrub or emergent wetlands is temporary. For example, the difference between palustrine forested wetlands (PFO) and palustrine scrub shrub (PSS) is the height of the vegetation (6 m - 20 feet). So when a forest is clearcut harvested, it goes from PFO to PSS. In a few years, with either natural regeneration or by planting, the young forest exceeds 20 feet in height and becomes PFO again. So this type of conversion is essentially an artifact of the Cowardin classification system and not a permanent change. (page 7)</li> <li>• The NRI use of the term "loss due to silviculture" for cause of wetlands loss is ambiguous. This category actually represents the loss of forested wetlands from all causes, not just silviculture. The NRCS does not distinguish between natural and man-caused wetlands losses. So losses could have been due to differences in flooding or wet signatures between the two inventory dates. (Steve Brady, NRCS phone conversation 10/17/2001) (page 7).</li> </ul>

CHAPTER	COMMENTS
<b>AQUA 3</b>	<ul style="list-style-type: none"> <li>• The report should provide some context to the statement that 3600 miles of rivers and streams are reported as impaired by silviculture in the South. It seems like a lot until compared to other land uses.</li> <li>• The claim that decreases in water yield, resulting from extensive hardwood conversion to planted pine could potentially impact the availability of future water yields for municipal water supplies, is unsubstantiated as no studies are quoted or data supplied.</li> </ul>
<b>AQUA 4</b>	<ul style="list-style-type: none"> <li>• The effectiveness of the SFI (especially on NIPF lands) is understated.</li> <li>• The significant efforts most states are devoting to BMP education programs are not discussed in much detail.</li> <li>• This chapter should acknowledge reports from individual states on monitoring and addressing "bad actors." Most of the Southern states are proactive in taking measures to improve BMP implementation, effectively using the Section 319 funds for their monitoring programs.</li> <li>• Wetlands issues are largely ignored in this chapter. Given the discussion about wetlands losses in Aqua 2 (particularly in Arkansas, Georgia, Louisiana), that issue should have been addressed here. No mention is made of the 15 federal BMPs for wetlands and the regulatory framework that make activities that change wetlands to uplands illegal.</li> </ul>
<b>AQUA 5</b>	<ul style="list-style-type: none"> <li>• The chapter notes that certain pollutants from forestry activities can disrupt aquatic systems, but fails to recognize that BMPs were developed to reduce the risk to water quality.</li> <li>• The statement that Wood Products Waste (sawdust &amp; bark) are among "the most insidious pollutants" should either be substantiated or discounted.</li> </ul>
<b>HISTORICAL REVIEW</b>	<ul style="list-style-type: none"> <li>• None noted</li> </ul>
<b>FIRE</b>	<ul style="list-style-type: none"> <li>• None noted</li> </ul>

*(Attachment 2)*  
**Southern Forestry Issues**  
**Commitments to Continuous Improvement in Sustainable Forestry**

**American Forest & Paper Association**  
**January, 2002**

The southern region of the United States is home to some of the nation's most productive, ecologically diverse and economically valuable forest resources. The forest products industry is engaged in a number of activities at the federal, state, and local levels, to ensure that southern forests will provide future generations with continued economic opportunities while protecting or enhancing environmental values. These activities include:

***(1) Promoting forest certification through the Sustainable Forestry Initiative® program (SFI), the American Tree Farm System and other mutually recognized forest certification systems.***

The SFI program is now the largest sustainable forestry program in North America. Currently, SFI participants process over 65% of the wood fiber consumed by industry in the United States. In fact an overwhelming majority of industrial forestlands in the South are now managed under the strict SFI standards. The SFI program is being further strengthened and broadened by establishing the Sustainable Forestry Board (SFB) as a fully independent body comprised of environmental and professional organizations, academics, landowners and industry executives, to review and improve SFI standards and certification guidelines.

Through a comprehensive set of forest management standards, mutual recognition, third party certification, and extending program eligibility to secondary wood and paper products manufacturers, the SFI and program can help ensure that southern forests remain healthy, ecologically diverse and productive.

***(2) Actively supporting state forestry and water quality agencies in efforts to strengthen Best Management Practices (BMPs) and state forestry programs.***

BMPs are part of the network of standards, laws and regulations that guide forestry activities in the South. In 2000, AF&PA and the National Association of State Foresters (NASF) co-sponsored BMP water quality workshops attended by representatives of state water quality agencies, EPA, USFS and the forestry community. The workshops provided an opportunity to compare and contrast state BMP/water quality programs, identify areas for improvement, discuss further water quality research needs and open a dialogue among state institutions and the forestry community to enhance cooperation and coordination.

AF&PA has recommended core components to state nonpoint source forestry programs and are encouraging their adoption at the state level. We are also working closely with stakeholders in southern states to determine the most appropriate methods to evaluate and strengthen the effectiveness of BMP programs. We strongly encourage compliance audits as a tool to monitor the effectiveness of BMP implementation. Collaborative arrangements among state forestry and water quality agencies and state academic institutions should be used to

perform these studies. In addition, AF&PA obtained FY2000 appropriations for states and universities to conduct BMP effectiveness monitoring in Georgia and Mississippi. AF&PA and state forestry associations have worked to obtain additional federal and state funding to conduct more studies in other states.

***(3) Supporting full federal and state funding of annual forest inventory and analysis data collection systems***

The forest industry has been instrumental in the development of a continuous forest inventory system to obtain timely forest resource information. The new system replaces a process that, in some cases, took seventeen years between cycles. In most southern states, the process for annual resource inventories has begun, but federal and state funding to fully implement the system is needed. In states that are experiencing more concentrated pressures on the forest resource, the forestry community is prepared to work with the state forestry agencies and state legislatures to obtain greater funding for more intensive forest inventory surveys. Timely data will advance research and local efforts for promoting sensible land use and wildlife conservation.

***(4) Protecting critical forest habitat through adaptive management techniques***

The industry has joined other stakeholders in supporting public and private research efforts on the effects of forest management on water quality, wildlife, habitat, biodiversity and landscape ecology. We need to aggressively pursue innovative management strategies that are compatible with wildlife enhancement and protection. The joint efforts of universities, state agencies and industry have already led to the recovery of a number of species that were at the brink of extinction.

***(5) Supporting additional funding to combat forest insect, disease and other forest health risks to southern forests***

Each year, millions of acres of forestland are burned or are damaged by insects and diseases. Keeping the 200 million acres of southern forests free from the potentially devastating consequences of wildfire, invasive species, diseases and insects is of paramount importance. In addition to supporting full funding for federal and state forest health programs, the forest industry and forestry community have called for strict rules governing importation of logs and lumber from countries with infestation outbreaks. Aggressive pest control strategies and programs to reduce wildfire risk will help ensure healthy forests for generations.

***(6) Taking actions to protect and maintain forested wetlands in the South***

In 1995, recognizing that many forested wetlands have unique ecological attributes, the forestry community, EPA, the Army Corps of Engineers and the environmental community reached an agreement to afford greater protections to numerous forested wetland systems. The forest industry is working with state agencies and local communities to ensure that the 1995 EPA Wetlands Memorandum of Agreement (MOA) that details acceptable wetlands practices is fully implemented. The wetlands MOA is part of a fabric of rules and regulations that govern forestry

in the South. The forest industry and forestry community also support new EPA rules that tighten restrictions on wetlands development and conversion.

***(7) Supporting conservation easements and similar mechanisms that can have an important role in encouraging sensible land use***

Voluntary conservation and other kinds of easements have evolved into an effective means of maintaining working forests throughout the South. Landowners can opt to sell development rights to an environmental trust or public agency while retaining the ability to manage the property in continuous forest use. Information about the advantages and disadvantages of easements and their effectiveness in retaining forestland use should be more readily available to southern landowners.

***(8) Supporting constructive modifications to state forestry programs and those contained in the Farm Bill***

The forest industry endorses and is committed to the delivery of sustainable forestry assistance programs and incentives to private forest landowners in the south. With 90% of the southern forest resource in private control, expanding the use of professional foresters and upgrading the delivery of professional forestry assistance to small woodlot owners is crucial. AF&PA, along with other private forestry stakeholders, developed a Forestry Title that creates a new program to fund conservation and environmental priorities for non-industrial private forest landowners. The program is designed to provide cost-share funding for practices that protect water quality and promote other sustainable forest management techniques.

***(9) Supporting funding for technical assistance, extension, logger training and other extension programs***

With 4 million private forest landowners in the south, continuous education and technical training are essential elements in delivering sustainable forestry programs. The forest industry and forestry community fully support federal, state and private programs that deliver education and technical assistance to landowners, loggers, consulting foresters and field foresters on forest management. The SFI program, state forestry associations and state cooperative extension agencies are committed to reaching out and training all loggers and landowners in forest management practices. Informed landowners and practitioners are more likely to avert inappropriate development.

***(10) Supporting policies and programs that promote forest conservation, encourage reforestation and lower the risks associated with long-term forest investments***

Changes in the tax code, such as more favorable treatment of timber income and reforestation expenses, and forest use valuations, provide powerful incentives to landowners to retain their lands as working forests. Other state and federal programs can also encourage good forestry. The industry joins the broader forestry community in supporting voluntary, incentive-based programs to maintain and improve forest conditions, and encourage retention of working forests.

***(11) Promoting sustainable forestry on all private lands through company landowner assistance programs***

Many forest products companies offer forest management assistance to qualified landowners at little or no cost. We encourage every forest landowner to prepare a long-term sustainable management plan based on their own timber, wildlife and other objectives. Under landowner assistance programs, company foresters and other natural resource professionals can assist in preparing these plans and in providing other important services. At present, approximately 4 million acres are enrolled in landowner assistance programs of AF&PA member companies.